



**SMALL BUSINESS PROGRAMS: BENEFITS,  
BARRIERS, BRIDGES AND CRITICAL  
SUCCESS FACTORS**

GRADUATE RESEARCH PROJECT

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AFIT/ILS/ENS/09C-06

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## Abstract

Social regulation of contracting has been used by the United States Government since the Great Depression to provide support to small businesses and the industrial base. Legislation continues to be introduced to strengthen and focus small business use mandates and programs for Federal agencies. While Federal agencies are mandated to implement small business program offices, many private companies have identified small business as viable value propositions and have incorporated small business programs to strengthen their supply chains.

A better understanding of the benefits of small business programs and the general implications of the barriers to program success, the bridges to program success and critical success factors could enable leaders and managers to improve small business program implementation, sustainment and development strategies and decisions. Small business program success can have a positive economic impact on an organization, local communities and the Nation as a whole. Successful small business programs and small business partnerships can also result in a positive impact on an organization's agility, flexibility and mission success. The study's information can be used by government and private organizations' leaders and managers to minimize small business program barriers and maximize small business program success.

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*To Father and Mother*

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# **SMALL BUSINESS PROGRAMS: BENEFITS, BARRIERS, BRIDGES AND CRITICAL SUCCESS FACTORS**

## **I. Introduction**

### **Background**

Social regulation of contracting has been used by the United States government since the Great Depression with the intent of providing employment and support to small businesses (Glaser, 1999). The first congressionally established small business entity appeared in 1942. The Small War Plant Corporation (SPWC) was created to assist small businesses with remaining viable, provided loans to small entrepreneurs, urged financiers to provide lines of credit and acted as a small business advocate to government procurement agencies (Small Business Administration (SBA), 2008). Legislation over the years has presented ever strengthening and focused small business mandates and programs that continually redefine and update the small business contracting requirements Federal Agencies are expected to meet.

Federal agencies are mandated to implement small business offices and programs, but private corporations are not required to follow the same statutes. However, many private companies are reported to have incorporated small businesses or diverse suppliers into their supply chains for economic and commercial reasons (Worthington, Ram, Boyal and Shah, 2007). Private companies fear that not having a small business office or small business program carries the cost of losing Federal agency customers. Companies that serve the federal sector establish small business offices as a means to build competitive

advantage through retention of and generation of new federal business (Sharma, Laseter and Witt, 2008).

Small business programs and relationships with small businesses and diverse suppliers seem to benefit from moving away from a relationship based on price to longer-term and mutually beneficially relationships that foster cooperation and lead to a win-win situation. Small business and supplier diversity program initiatives buttressed by strong leadership support and inclusion in corporate strategy can enhance the effectiveness of an organization's entire supply chain. Small business partnerships have the potential to be a value proposition and positively impact areas such as costs, innovation, growth, quality, and customer satisfaction. Throughout the report, the term small business program refers to both small business programs and supplier diversity programs except where specifically noted as one or the other by the respondents.

### **Problem Statement**

Small businesses make up 99.7% of all United States employer firms and are vital to the strength of the Nation and its economy to the extent that Congressional legislation over the past 55 years has focused on the development and viability of small businesses in America (SBA, 2008). The Department of Defense (DoD) was given a 'red' rating by the SBA in 2006 for not meeting statutory small business goals (SBA, 2008). The 'red' rating prompted the Undersecretary of Defense for Acquisition, Technology and Logistics to request that the United States Air Force (USAF) improve its small business performance (Wynne, 2008).

In response, Secretary Wynne directed USAF small business teams to "grow and strengthen the Air Force Small Business Program and improve the USAF contribution to

achieving the DoD small business goals” (Wynne, 2008: 1). The USAF began the “Beyond Goals” campaign aimed at invigorating small business contributions to the USAF mission and designed to take the program beyond meeting statutory goals to realizing small businesses as value added partners (Wynne, 2008). Secretary Wynne (2008) noted that the Beyond Goals campaign is a strategic plan that is not just about meeting goals, but it effectively establishes an environment that promotes the identification of and contracting with small businesses for goods and services of choice to meet mission requirements.

It is suggested that a better understanding of a supply chain and a clearer roadmap emerges through greater insight regarding the benefits, barriers and bridges associated with its implementation (Fawcett, Magnan, and Ogden, 2007). The definitions of benefits, barriers and bridges supplied by Fawcett et al. (2007), could be revised to provide definitions of the bridges, barriers and benefits as they relate to small business and supplier diversity programs. With a better understanding of the benefits, barriers and bridges regarding small business programs, a roadmap for small business program implementation, development and sustainment could emerge. This research helps to identify and define small business program benefits, barriers and bridges and uncover critical success factors. The research also aims at understanding how to overcome some of the program barriers. With a better understanding of the benefits, barriers and bridges, leaders and managers can make effective small business program decisions and strategy.

## Research Objectives/Research Questions & Assumptions

The research objective is to examine the small business program benefits, barriers, bridges and critical success factors, identified in the literature and through multiple case study interviews, to help improve small business program performance and strategy. As suggested by Fawcett et al. (2007), a better understanding of these factors could enable leaders and managers to improve small business program implementation, sustainment and development decisions and strategies. The study established the following research questions in support of this research objective:

- ❖ *What benefits do organizations receive from implementing initiatives that increase integration of small businesses into the supply chain?*
- ❖ *What are the barriers that organizations face when implementing, developing and sustaining a small business program?*
- ❖ *What are the bridges to effective implementation, development and sustainment of a small business program?*
- ❖ *What are the critical factors or components for small business program success?*

The study also developed nine investigative questions (IQ) that provided the framework for the study and helped guide the research:

*IQ<sub>1</sub>: What are the benefits of a small business programs?*

*IQ<sub>2</sub>: What are the barriers to small business program implementation, development and sustainment?*

*IQ<sub>3</sub>: Does senior leadership involvement and support impact the implementation, development and sustainment of a small business program?*

*IQ<sub>4</sub>: How do corporate or enterprise strategic level efforts affect the success of a small business program?*

*IQ<sub>5</sub>: What metrics are used to indicate the success or failure of small business program initiatives?*

*IQ<sub>6</sub>: How are small business program managers and staff held accountable for small business program success?*

*IQ<sub>7</sub>: Does recognition of small business program successes enhance staff performance?*

*IQ<sub>8</sub>: How do long-term, mutually beneficial relationships affect the organization and the small business partner?*

*IQ<sub>9</sub>: What are small business program critical components and success factors?*

## **Research Focus**

The focus of this research is to identify the benefits, barriers, bridges and critical success factors of a small business program. First, the cases used for the study were selected based on the organization having a functioning small business or supplier diversity program. Second, the organizations were selected based on whether they were an Air Force program, Department of Defense (non-Air Force) program or commercial industry program. The study attempted to select companies from these three categories in order to provide a variety of perspectives.

## **Methodology**

The study identified small business benefits, barriers and bridges through a literature review. The literature review was also the basis for developing theoretical propositions. Multiple case studies of existing small business programs were conducted to gain a more in-depth understanding of the benefits, barriers, bridges and critical success factors as they relate to small business program implementation, development and sustainment. According to Ellram (1996: 97), “a case study would be desired in those circumstances because it provides depth and insight into little known phenomenon” and “qualitative methods are preferred because they provide a depth and richness,



allowing the researcher to really probe the ‘how’ and ‘what’ questions and construct idiographic knowledge”. A multiple case study methodology was used to compare the benefits, barriers and bridges identified in the literature review to those identified by small business professionals who are subject matter experts (Yin, 2003).

### **Implications and Summary**

Small business program success can have a positive economic impact on an organization, local communities and the Nation as a whole. Successful implementation, development and sustainment of small business programs and small business partnerships can also result in a positive impact on an organization’s agility, flexibility, supplier diversification, mission success and competitive advantage. The analysis completed by this study provides a better understanding of the benefits of small business programs and partnerships. Analysis of the data also uncovered factors that have provided difficulties to realizing success, initiatives that can mitigate difficulties and the essential elements or critical components that contribute to small business program success and positive effects on the organization. The study’s information can be used by government and private organizations’ leaders and managers to minimize program barriers and maximize program success.

### **Preview**

This first chapter outlines the direction and impetus of the research to include the research focus, research questions, and the methodology employed for this study. The second chapter entails a review of literature related to and examining the benefits, barriers, bridges and success factors for small business programs. The chapter also provides a history and overview of small business programs in the United States. The

third chapter details the methodology, including the multiple case research design, data collection and analysis techniques that were used to answer the research questions. The fourth chapter encompasses the results and analysis of the propositions as well as explanation of additional research findings. The fifth and final chapter consists of the overall conclusions, recommendations for small business program success, assumptions, and limitations of the study and implications for further research.

## **II. Literature Review**

### **Overview**

The purpose of this chapter is to explore literature relevant to the research questions. The review addresses the history of the small business programs and initiatives, the history of the Small Business Administration, Federal regulations, the definition of Small Businesses and diverse suppliers and subcategories, the business case for small business partnerships and small business program benefits, barriers, bridges and critical success factors.

### **History of Small Business Initiatives in the United States**

The United States government began social regulation of contracting with the intent to provide employment and support to small businesses, at Government expense, during the Great Depression (Glaser, 1999). During World War II, concern for the well being of small businesses intensified when they were unable to compete with larger firms that were increasing production to meet wartime demand (Glaser, 1999). In 1942, Congress created the SWPC to help small businesses remain viable and provide loans to small entrepreneurs, urged financiers to provide lines of credit to small businesses, and acted as a small business advocate to government procurement agencies (SBA, 2008).

At the conclusion of World War II, the SWPC was abolished and many of its responsibilities were delegated to the Department of Commerce and the Office of Small Business (SBA, 2008). However, during the Korean War, it was necessary for Congress to establish a new wartime small business organization with responsibilities similar to those of the SWPC created for World War II (Glaser, 1999). It became more apparent that the U.S. Government needed an entity focused on keeping small businesses viable.

In 1952, President Dwight D. Eisenhower suggested that a small business agency be created and in 1953, Congress created the Small Business Administration via the Small Business Act of 1953 (SBA, 2008).

### **Small Business Defined**

The SBA (2008) notes that small business concerns are those that are based in the United States of America and typically employ fewer than 500 personnel. However, to be deemed a small business it must also be “independently owned and operated and . . . not dominant in its field of operation” (Office of Advocacy, 2008). Moreover, each business is defined by a size standard which is almost always stated either as the number of employees or average annual receipts of a business concern (SBA, 2008).

Seven different types of small business concerns that meet diverse supplier criteria are delineated by the SBA (2008). These small business concerns are listed in Table 1.

**Table 1. Small Business Concern Categories and Definitions**

<b>Small Business Concern</b>	<b>Definition</b>
Small Disadvantaged Business	At least 51 percent owned by one or more socially and economically disadvantaged individuals. Publicly-owned business must have at least 51 percent of that business' stock owned by one or more socially and economically disadvantaged individuals. Must be managed and have daily business operations controlled by one or more of the socially and economically disadvantaged individuals who own it.
Woman-Owned Small Business	At least 51 percent owned by one or more women, and a publicly-owned business must have at least 51 percent of that business' stock owned by one or more women with management and daily business operations controlled by one or more women.
Veteran-Owned Small Business	At least 51 percent owned by one or more veterans and a publicly owned business has at least 51 percent of the stock owned by one or more veterans. Management and daily business operations are controlled by one or more veterans.
Minority Business Enterprise	Minorities are African-Americans, Hispanics, Asian-Pacific Americans, Asian-Indian Americans, and Native Americans. At least 51 percent owned by minorities and a publicly-owned business has at least 51 percent of that business' stock owned by one or more minorities. Management and daily business operations are controlled by one or more of the minority individuals who own it.
Disabled Veteran-Owned Small Business	At least 51 percent owned by one or more disabled veterans or, any publicly owned business has at least 51 percent of the stock owned by one or more disabled veterans. Management and daily business operations of are controlled by one or more disabled veterans.
HUBZone Small Business	The company must meet small business concern criteria, be geographically located in a HUBZone (Historically Underutilized Business Zone), owned and controlled by one or more U.S. citizens. At least 35 percent of the business's employees must reside in the HUBZone.
Indian Incentive Program (includes Hawaii and Alaska)	American: supplier or subcontractor must be owned by a federally recognized tribe. Alaskan: supplier or subcontractor must be owned by a native, native village or native group. Hawaiian: supplier or subcontractor must be owned by a recognized native Hawaiian.

## **Government Regulation and Business Case**

Legislation over the years has established ever strengthening and focused programs that more clearly define the small business contracting requirements federal agencies are expected to meet. Small Business Acts are amended almost annually to continue to bring fidelity to the program and ensure emerging small business

opportunities are addressed. The formal small business contract spending goal of no less than 20% was established in 1988 through the Small Business Competitiveness Demonstration Program Act (United States Congress, 1988). The Act also mandated quarterly reporting of federal agency goal achievement and directed the agency small business offices to target industries with low participation rates. In 1997, Congress' Public Law 105-135 increased the federal contract spending goal to 23% (Reardon and Moore, 2005: 2).

The Small Business Reauthorization Act of 1997, also known as Public Law 105-135, not only increased the federal contract spending goals, it also introduced two new small business programs (United States Congress, 1997). The new programs were established to increase federal contracting with the diverse types of small businesses. Under the provisions of Public Law 105-135, the HUBZone program and the Service Disabled Veteran's program were given due attention. Women owned small businesses were given increased federal contract spending opportunities through the Women's Business Ownership Act of 1988 (Public Law 100-533) and Executive Order 13157, signed in May of 2000 (United States Air Force Small Business Office (USAF SBPO), 2008).

While federal agencies are mandated to implement small business offices, private corporations do not have to follow the same statutes. Min's (1999) research, however, indicated that private companies can benefit from establishing a small business program. Even though they are not driven by government statutes, many private companies are incorporating small business programs and diverse suppliers into their supply chains for economic and commercial considerations (Worthington et al., 2007).

Suppliers fear that a lack of a small business or supplier diversity program carries a cost of losing customers. According to Sharma et al., (2008), companies serving the federal sector are developing small business initiatives in their supply chains as a means to build competitive advantage through generation of new Federal business. Outsourcing further extends the reach of small business programs to include the suppliers' supplier which leads to second tier initiatives and an increased commitment to supplier diversity (Sharma et al., 2008).

Worthington et al. (2007) report that on the supply side of the American economy, small businesses and diverse suppliers are eclipsing the growth of all American businesses at a rate of 17% per year. It is argued that these growth rates make small businesses a potent potential market and a clear link between economic development and future sales growth along with creating wealth in the community (Worthington et al., 2007). Worthington et al. (2007: 325) used Ford Motor Company's supplier diversity program to illustrate the business case.

“Since 1978, Ford's commitment to economic empowerment has been greatly expanded to include a vast network of minority suppliers and dealers. By encouraging the work of these entrepreneurs, the company in turn has helped to empower individuals and to create wealth within the communities in which it does business. Thus, Ford's Minority Supplier Diversity programme was designed to identify high potential minority business persons and assist them in growing their companies to competitive positions in the automobile industry. Ford now purchases more goods and services from minority owned and operated companies than any other U.S. corporation. In 2001 for example, the automaker purchased \$4.5 billion of goods and services from minority business enterprises (MBEs) of which \$3.1 billion was direct and another \$1.4 billion was second tier.”

Small business programs and supplier diversity have often been touted in past decades as part of a corporation's civic duty or social responsibility (Carter and Jennings, 2000). However, minorities will represent half the population of the United States by the

year 2050 (U.S. Census Bureau, 2008). Moreover, Census Bureau (2008) information indicates that almost 4 million minority-owned and women-owned businesses combine to provide nearly \$1.6 billion in sales revenue and employ approximately 12 million people. Corporate leaders and management have recognized the new demographics and marketplace realities and the accompanying business opportunities. Whitfield and Landeros (2006) concluded that supplier diversity involving a proactive business process that provides suppliers equal access to supply management opportunities and partnering with small businesses can open doors to new markets and innovative ideas that enhance competitive advantage.

Sharma et al. (2008) and Dozbada (1999) report that there is value to supplier diversity that leads to increased shareholder value and sustainable competitive advantage driven by the shift in U.S. demographics, small business goals growth, strengthening of supply relationships, increased innovation and cost reduction. Frontczak (2001) suggests that in order for organizations to be successful, they will need to access diverse suppliers in all market segments via strategic alliances, teaming, and innovative business arrangements in order to provide the right talent and right products at the right time.

### **Small Business Benefits, Barriers and Bridges**

Fawcett et al. (2007) assert that managers need to have a better understanding of supply chain management. It is suggested that a better understanding of the supply chain and a clear roadmap emerges through understanding the benefits, barriers and bridges associated with its implementation. The definitions supplied by Fawcett et al. (2007) could be revised to provide definitions of the benefits, barriers, bridges as they relate to small business programs.



Understanding the benefits assists managers in making informed decisions regarding the gainfulness of a small business program and diverse supplier relationship management. Having a better understanding of the barriers to a successfully implemented, developed and sustained small business program assists managers with evaluating the costs and viability of a small business strategy. “Knowing where the barriers are likely to be found also makes it possible to establish valid expectations about the integration process as well as appropriate contingency plans for overcoming some of the expected challenges” (Fawcett et al., 2001: 25). Finally, understanding the bridges to successful small business program implementation, development and sustainment delineates the scope, characteristics and processes involved with implementation, development and sustainment. Evaluating the nature of the small business program, potential business partners and facilitating collaboration across the enterprise are paramount to developing a plan for small business program implementation and success (Fawcett et al., 2007).

### ***Benefits.***

The literature reviewed for this study included several benefits that companies have been able to appreciate from small business relationships and programs. McHugh, Humphreys and Alert’s (2003) research points toward organizational health and competitive advantage. Others who report empirical support for small business contributions to competitive advantage include Dozbada (1999), Whitfield (2006), Richards and Ballenger (2005), and Dunn and Young (2004). These authors intimate that the use of small businesses in the supply chain in a purposefully inclusive manner helps organizations realize a competitive advantage in their market segment(s).

The advantage gained from inclusion can lead to more responsive suppliers, increased customer satisfaction and flexibility that surpass that of midsized or large companies (Richards and Ballenger, 2005; Sharma et al., 2008). Improved strategic decision making and buyer-supplier dialogue and improved buyer-supplier relationships ultimately lead to improved supplier performance (McHugh et al., 2003). Other benefits of note include supplier involvement in product design and development, partnerships and supplier development (McHugh et al., 2003).

Yuva (2005) lists many potential benefits or values that can emerge from relationships and partnerships with suppliers. Potential forms of value that can be appreciated are listed in Table 2.

**Table 2. Potential Value from Relationships with Small Businesses**

<b>Potential Value from Relationships with Small Businesses</b>
<ul style="list-style-type: none"> <li>• Joint design or redesign of products or manufacturing processes</li> <li>• Reduction of inventory</li> <li>• Reduction of capital expenditures</li> <li>• Decreased product development time cycles</li> <li>• Product, process and technology innovation</li> <li>• Joint marketing and advertising</li> <li>• Access to new markets or penetration of new markets</li> <li>• Improved forecasting and response</li> <li>• Improved quality and speed of decision making</li> <li>• Improved service quality, flexibility and responsiveness</li> <li>• Streamlined order fulfillment and rebates</li> <li>• Faster selection and contract negotiation</li> </ul>

Yuva (2005)

Small Business program benefits suggested by Min (1999) are increased small business purchasing to meet federal government statutory requirements, improved public relations, enhanced communication, long-term relationships and networking

opportunities. Implementation of a small business program and/or expansion of a diverse supplier base may be a strategy for identifying and developing new talent (Frontczak, 2001). Customers of small businesses also see positive results in the form of increased business, market share and an expanded total market (Conrad, Robinson and Walker, 2000). Effectively leveraging small businesses can lead to more attentive suppliers who assist the company with achieving strategic goals and objectives (Whitfield and Landeros, 2006). Whitfield and Landeros (2006) and Sharma et al. (2008) suggest that small business programs indeed strengthen buyer-supplier relationships, drive innovation and overall lower costs in ways that are mutually beneficial. Diverse suppliers not only strengthen the buyer-supplier relationship, but also strengthen the company's supply chain, enable market penetration and boost community commitment (Terrill, 2007). A summary of the potential small business program benefits are listed in Table 3.

**Table 3. Potential Benefits of a Small Business Programs**

<b>Benefit</b>	<b>Reference</b>
Organizational Health	McHugh et al. (2003)
Competitive Advantage	McHugh et al. (2003); Dozbada (1999); Whitfield (2006); Richards and Ballenger (2005); Dunn and Young (2004)
More Responsive Suppliers	Richards and Ballenger (2005); Sharma et al. (2008)
Increased Customer Satisfaction	Richards and Ballenger (2005); Sharma et al. (2008)
Increased Flexibility	Richards and Ballenger (2005); Sharma et al. (2008); Yuva (2005)
Improved Strategic Decision Making	McHugh et al. (2003); Yuva (2005)
Improved Buyer-Supplier Dialogue	McHugh et al. (2003); Yuva (2005); Min (1999)
Improved Buyer-Supplier Relationships	McHugh et al. (2003); Min (1999)
Improved Supplier Performance	McHugh et al. (2003)
Increased Supplier Involvement in Product Design and Development	McHugh et al. (2003); Yuva (2005)
Better Partnerships	McHugh et al. (2003)

Increased Supplier Development	McHugh et al. (2003)
Reduction of Inventory	Yuva (2005)
Reduction of Capital Expenditures	Yuva (2005); Whitfield and Landeros (2006); Sharma et al. (2008)
Decreased Product Development Time Cycles	Yuva (2005)
Increased Innovation	Yuva (2005); Whitfield and Landeros (2006); Sharma et al. (2008)
Increased Joint Marketing and Advertising	Yuva (2005)
Increased Penetration into New Markets	Yuva (2005); Terrill (2007)
Improved Forecasting and Response	Yuva (2005)
Improved Quality and Speed of Decision Making	Yuva (2005)
Improved Service Quality	Yuva (2005)
Streamlined Order Fulfillment and Rebates	Yuva (2005)
Faster Selection and Contract Negotiation	Yuva (2005)
Increased Diverse Supplier Contracts to Meet Federal Government Statutory Requirements	Min (1999)
Improved Public Relations	Min (1999); Terrill (2007)
Increased Networking Opportunities	Min (1999)
Increased Identification and Development of New Talent	Frontczak (2001)
Increased Business and Market Share	Conrad et al. (2000)
More Attentive Suppliers Who Assist the Company with Achieving Strategic Goals and Objectives	Whitfield and Landeros (2006)
Strengthened Supply Chain	Terrill (2007)

### ***Barriers.***

Implementation or continuation of a small business program can seem contrary to reduction of supplier bases (Min, 1999; Conrad et al., 2000; Whitfield, 2006). It may be necessary to prove to leadership that a small business program adds value added (Min, 1999). Min (1999) and Whitfield and Landeros (2006) stated that barriers to supplier diversity program effectiveness and lack of adoption as a key to competitive advantage comes in two forms. Lack of adoption comes from neglecting to streamline the program

to the organization's culture and management strategy and failing to link the small business program to the organization's long-term objectives and strategies (Min, 1999; Whitfield and Landeros, 2006).

Other significant barriers to a successful small business program were identified by researchers as lack of top management and widespread management support throughout the organization (Min, 1999; Conrad et al., 2000; Whitfield, 2006; Richards and Ballenger, 2005; Kapp and Banks, 2008; Terrill, 2007). McHugh et al. (2003) identify powerless managers, unhealthy management styles, confused vision and illiberal views held by senior management as being obstacles. Furthermore, lack of communication of the organization's strategy is evidence of organizational behavior and management styles that lead to ill health of the organization and possibly the ill health of partner organizations (McHugh et al., 2003).

Inward-looking and closed strategy development leads to implementation of strategy without full understanding and information about their small business partners (McHugh et al., 2003). Poor quality of communication between the buyer and supplier was discussed by McHugh et al., (2003) and Dunn and Young (2004) could be detrimental to continuance of a buyer-supplier relationship. Poor communication weakens the organization's strategy and its implementation and leads to buyer and supplier units that are ill-informed of the organization's strategy and plan for the future (McHugh et al., 2003). Buyer-supplier relationships require in-depth communications that allow for collaboration, joint decision making, innovation, expedited problem solving and ultimately the continuation of the mutually beneficial partnership (Dunn and Young,

2004). A small business supplier may need more assistance than a larger supplier regarding information technology and information sharing agreements (Min, 1999).

Another deterrent to small business success is lack of accountability. According to Richards and Ballenger (2005), lack of accountability could result in not knowing how well the organization identifies and uses diverse suppliers and not being able to gauge how well existing diverse suppliers are performing. There can also be a powerful partner who squeezes a small business or submissive partner in the hopes of appreciating higher quality, lower costs, and shorter lead times (McHugh et al., 2003). The squeeze, which is usually applied by the powerful buyer has the potential to destroy the relationship. This can foster ill health within the supplier organization resulting in a likely impact on the buyer (quality, delayed deliveries) and spiral of negativity (McHugh et al., 2003).

McHugh et al. (2003) assert that without a sound partnership, it is difficult to implement and reap the benefits of a win-win or mutually beneficial contractual relationship that could foster competitive advantage.

Small business professionals, supply chain managers and buyers must know how to identify and effectively select small business partners. However, Frontczak (2001) and Kerr (2006) caution that managers and buyers must also be trained on small business and small business program processes and success factors. Small diverse businesses can find it daunting to do business with a large organization. Without training on small business program success factors, managers and buyers may not inherently know how to work with and develop smaller suppliers (Frontczak, 2001).

Suppliers could be regarded as logical extensions of the organization. When purchasers help or develop suppliers, they are helping themselves and when an attitude of

‘us versus them’ is not prevented or eradicated, it could be impossible to shift to a ‘we’ paradigm that fosters a healthy partnership (Frontczak, 2001 and Dunn and Young, 2004). A larger organization must be willing to expend effort to develop small businesses in order to create a win-win situation (Dunn and Young, 2004).

Small businesses may be stifled by the need for a large capital base and the inability to attract qualified professionals rendering them void of expertise (Conrad et al., 2000). A significant barrier looms for organizations reliant on high-tech products. Richards and Ballenger (2005) noted that small business goals can be very difficult for high-tech industries where very few diverse suppliers have the investment dollars or expertise to be competitive.

Finally, small business programs face challenges related to certifying small businesses, selecting diverse suppliers and the rate of failure of diverse suppliers (Min, 1999 and Whitfield and Landeros, 2006). In order for a diverse supplier to be recognized it must be certified by the SBA (SBA, 2008). The inability of a supplier to become certified or to be re-certified due to supplier development initiatives can lead to difficulties in sustaining the required or reasonable number of diverse suppliers. Table 4 summarized the barriers listed in the previous paragraphs.

**Table 4. Potential Barriers of a Small Business Program**

<b>Barrier</b>	<b>Reference</b>
Supply Base Reduction	Min (1999); Conrad et al. (2000); Whitfield (2006)
Neglecting to Streamline the Program to the Organization’s Culture and Management Strategy	Min (1999); Whitfield (2006)
Failing to Link the Program to the Organization’s Long-Term Objectives and Strategies	Min (1999); Whitfield (2006)

Lack of Top Leadership and Widespread Management Support	Min (1999); Conrad et al. (2000); Whitfield (2006); Richards and Ballenger (2005); Kapps and Banks (2008); Terrill (2008)
Powerless Managers	McHugh et al. (2003)
Unhealthy Management Styles	McHugh et al. (2003)
Confused Vision	McHugh et al. (2003)
Lack of Communication of the Organization's Strategy	McHugh et al. (2003)
Inward-Looking and Closed Strategy Development	McHugh et al. (2003)
Poor Quality of Internal Communications	McHugh et al. (2003); Dunn and Young (2004)
Poor Quality of External Communications	McHugh et al. (2003); Dunn and Young (2004)
Buyers Who Misunderstand Principles and Meanings of Partnerships	McHugh et al. (2003)
Inter-Firm Mistrust	McHugh et al. (2003); Dunn and Young (2004)
Lack of Mutually Agreed Upon and Clearly Communicated Performance Measures	Dunn and Young (2004); Richards and Ballenger (2005)
Lack of Accountability for Program Success	Richards and Ballenger (2005)
Powerful Partners Who Squeeze a Submissive Partner	McHugh et al. (2003)
Difficulty Doing Business With a Large Organization	Frontczak (2001)
Lack of Training for Small Businesses	Frontczak (2001)
Lack of Training for Small Business Professionals and Buyers	Frontczak (2001)
Us versus Them Mentality	Frontczak (2001); Dunn and Young (2004)
Small Business Lack of Capital Base	Conrad et al. (2000)
Small Business Inability to Attract Qualified Professional	Conrad et al. (2000)
Few High-Tech Industry Small Businesses	Conrad et al. (2000)
Certification as a Small Business	Min (1999); Whitfield and Landeros (2006)

### ***Bridges.***

Successful small business programs can benefit from support by executive commitment and involvement, formal policy and an action plan (Kapp and Banks, 2008)



and Terrill, 2007). Dedicated management and staff, a budget, buyer and supplier training and accountability, a tracking and reporting system and internal and external communications are also small business program essentials (Kapp and Banks, 2008). However, Smith, Banks, Lane and Moore (2008) suggest that the small business program be installed and implemented in a structured and incremental manner. Table 5 summarizes the program levels as suggested by Smith et al. (2008). Further explanation of the attributes, foci and performance measures will be addressed in subsequent paragraphs.

**Table 5. Suggested Small Business Program Levels**

<b>Token and Basic Program Attributes</b>	
<b>Token Program</b>	<b>Basic Program</b>
<ul style="list-style-type: none"> <li>• Lacks: tracking, outreach, trade fair participation and communication or materials.</li> <li>• There is no program manager or point of contact to hand telephone calls</li> </ul>	<ul style="list-style-type: none"> <li>• Program coordinator</li> <li>• Program is communicated internally and externally</li> <li>• Trade fair participation is limited</li> <li>• Program is driven by compliance</li> <li>• Subcontracting plan in place</li> </ul>
<b>Evolution from Token to Basic Program</b>	
<b>Focus</b>	<b>Performance Measure</b>
<ul style="list-style-type: none"> <li>• Identify customer requirements and/or interests</li> <li>• Appoint a program manager</li> <li>• Provide a budget</li> </ul>	<ul style="list-style-type: none"> <li>• Link revenue or value added to supplier diversity</li> <li>• Identify the number of government contracts</li> <li>• Identify the amount spent on diverse supplier contracts</li> </ul>
<b>Traditional and Advanced Program Attributes</b>	
<b>Traditional Program</b>	<b>Advanced Program</b>
<ul style="list-style-type: none"> <li>• Local and National Membership with National Minority Supplier Development Council (NMSDC)</li> <li>• Program manager is visible</li> <li>• Limited: senior management interest, program metrics and tracking, outreach to minority suppliers.</li> <li>• Program is outside the core corporate strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Active participation with local and national NMSDC</li> <li>• Dedicated budget and resources</li> <li>• Senior management commitment and involvement</li> <li>• Education and training for buyers/purchasing</li> <li>• Second tier program</li> <li>• Program tracking and reporting is regular and accurate</li> <li>• Strategic communications plan</li> <li>• Supplier diversity integrated with all departments that buy and sell goods/products</li> </ul>

	<ul style="list-style-type: none"> <li>• Supplier development initiatives</li> </ul>
<b>Evolution from Basic to Traditional Program</b>	
<b>Focus</b>	<b>Performance Measure</b>
<ul style="list-style-type: none"> <li>• Build the necessary infrastructure</li> <li>• Identify traditional opportunities</li> <li>• Source/identify diverse suppliers</li> <li>• Discover executives who understand program benefits</li> </ul>	<ul style="list-style-type: none"> <li>• Number of top customers requesting diverse supplier reports</li> <li>• Diverse supplier contract spending by commodity</li> <li>• Diverse suppliers available for contracting opportunities.</li> </ul>
<b>Evolution from Traditional to Advanced Program</b>	
<b>Focus</b>	<b>Performance Measure</b>
<ul style="list-style-type: none"> <li>• Relationship management/monitoring</li> <li>• Core opportunities identified</li> <li>• Partnerships developed</li> <li>• Benchmarking with key competitors</li> </ul>	<ul style="list-style-type: none"> <li>• Customer/supplier demographics and preferences</li> <li>• Number of core commodity contracts and professional services</li> <li>• Contracts awarded due to small business involvement</li> </ul>
<b>World Class Program Attributes</b>	
<ul style="list-style-type: none"> <li>• Enterprise-wide integration with corporate processes</li> <li>• Leadership and commitment from Senior Management</li> <li>• Linked to annual performance objectives</li> <li>• Metrics and tracking is advanced</li> <li>• Dedicated teams and activities</li> <li>• Diverse supplier opportunities within all business areas</li> <li>• Second tier program is productive</li> <li>• Communications plan is robust</li> <li>• Cross-functional process improvement teams</li> <li>• Supplier diversity program is integrated with intra-business units</li> </ul>	
<b>Evolution from Advanced to World Class Program</b>	
<b>Focus</b>	<b>Performance Metrics</b>
<ul style="list-style-type: none"> <li>• Link supplier diversity to shareholder/stakeholder value</li> <li>• Diverse supplier strategic alliances are fostered</li> <li>• Communicate process value to the key stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>• Key performance indicators for supplier diversity</li> <li>• Return on Investment</li> <li>• Diverse suppliers are evaluated the same as other suppliers</li> </ul>

Adapted from Smith et al. (2008).

### ***Implementing a New Strategy/Program.***

Small business program initiatives require committed and respected champions who provide direction, focus and guidance (Frontczak, 2001; Kerr, 2006). Small business strategy usually includes changing the solicitation and selection process, the manner by which contracts are awarded, and the way the buyer-supplier relationship is

viewed and valued within the organization (Frontczak, 2001; Nesby and Yeater, 1996; Dunn and Young, 2004). Organizational paradigm shifts are suggested to be paramount to overcoming cultural barriers (Whitfield and Landeros, 2006). The paradigm shift is incorporated by encouraging and building an inclusive culture through fundamental changes in internal structures, operating procedures, rewards systems, corporate strategy and leadership and management practices (Whitfield and Landeros, 2006; Handfield and Edwards, 2005; Min, 1999; Auskalnis, Ketchum and Carter, 1995).

### ***Corporate Strategy and Leadership Commitment.***

Organizations can achieve competitive advantage by understanding internal and external strengths, weaknesses and threats as well as the opportunities in the competitive and diverse market environment (Whitfield and Landeros, 2006). “For supply strategy to be effective, it must be tied to competitive strategies and overall organizational goals and be flexible enough to respond to changing external forces” (Whitfield and Landeros, 2006: 18). Whitfield and Landeros (2006), note that organizations have identified the importance of the supply chain and are linking purchasing to corporate long-term strategies and objectives. Purchasing has played a role in providing information about the ever increasing diversity in suppliers and markets and identified an opportunity for competitive advantage via diverse suppliers (Whitfield and Landeros, 2006). Many organizations are beginning to place implementation and sustainment priority on small business or small business programs and embrace the program as a deliberate corporate strategy for long-term success and sustained competitive advantage (Frontczak, 2001).

Small business strategy is purported to be more successful when senior leadership and top management, organization-wide, demonstrate personal commitment to the small

business program (Handfield and Edwards, 2005; Conrad et al., 2000; Kapp and Banks, 2008; Terrill, 2008). Moreover, a successful small business strategy can be found in organizations that have a formal small business policy (Terrill, 2007; Kerr, 2007; Smith et al., 2008) and articulate the strategy at all levels to include marketing, the entire workforce and the suppliers (Richards and Ballenger, 2005). The establishment of an executive steering committee could be used to guide a supplier diversity program and communicates senior leader participation and involvement (Handfield and Edwards, 2005). Handfield and Edwards (2005) also found that a bridge can be developed through including small business goals in the executive performance plans and performance reviews of those who manage buyers and by placing accountability for strategy success on all managers and buyers across the organization. Min (1999), Kapp and Banks (2008) and Terrill (2007) all agree that the small business program must include its own budget, a full-time manager and awareness of the program at all levels of the organization.

#### ***Identification and Discovery of Small Businesses.***

Essential components of a small business program are identifying and discovering suppliers who will meet the organization's needs (Nesby and Yeater, 1996). According to Frontczak, 2001; Handfield and Edwards, 2005; Kapps and Banks, 2008; Smith et al., 2008), there are a myriad of ways to identify and solicit business from diverse suppliers. Trade fairs, directories, industry contacts, peer referrals, and other suppliers were noted as ways to find small businesses (Auskalnus, Ketchum and Carter (1995). Richards and Ballenger (2005) identify that active participation in local, regional and national supplier development councils can expose the organization to small business opportunities. Another potential venue for networking and discovering small businesses is active

involvement in Minority and Women Business Enterprise organizations, the NMSDC and the SBA (Nesby and Yeater (1996); Handfield and Edwards (2005); Terrill (2007).

Handfield and Edwards (2005) also identify several online resources to include the MBISYS® program of the NMSDC, the PRO-Net which is the Department of Defense's Central Contractor Registration database, and the D&B Supply Locator to name a few.

Another approach to identifying diverse suppliers is by evaluating the organization's existing supplier base. Evaluating the existing supplier base will assist in determining the number of already certified small businesses under contract (Denslow and Giumipero, 2008). Some suppliers may appear to be diverse suppliers, but are not certified as such. Said suppliers could be asked to attain official certification from the SBA (SBA, 2008).

#### ***Partnering with Small Businesses.***

The literature reviewed emphasized a need for closer cooperation between the buyer and small business supplier in the form of partnership arrangements. Dozbada (1999) defines partnering as a relationship where both sides understand the view points of the other and are able to examine issues from the other's perspective. Early supplier involvement, education, collaboration and trust can help maintain the relationship with the small business (Roberts, 2003). Essential parts of the partnership arrangement include communication structures that foster dialogue, collaboration, consultation and supplier participation in decision making (McHugh et al., (2003). McHugh et al. (2003) argue that partnerships can be damaged by the large businesses squeezing the small business due to not having the essential parts of a partnership arrangement. The next few

paragraphs address some of the trust and information technology tools than can be used as bridges to small business partnership success.

McHugh et al. (2003) suggest that manufacturers understand that the path to becoming a world class competitor involves high levels of trust and cooperation with their entire supplier base. The increasingly global and diverse market is a catalyst for realizing the value of implementing and sustaining strategic relationships with critical large and small businesses (Dozbada, 1999). A team mind-set and allying with small businesses can enable process improvements only appreciable through the ability of the supplier to innovate (McHugh et al., 2003). Closer buyer-supplier relationships improve customer satisfaction, innovation, organizational growth and health, and financial performance (Dozbada, 1999; McHugh et al., 2003). The most effective relationships are identified to be strategic alliances which are used to build solid relationships and reduce costs, enhance technology and service and leverage resources in a mutually beneficial way Roberts (2003).

For the buyer-supplier relationship to permit the needed level of cooperation and collaboration, McHugh et al., (2003) suggest that there must be a high level of inter-firm trust. Trustworthiness can evoke commitment and demonstrate a spirit of mutual benefit required for the best possible relationship (Roberts, 2003). Dozbada (1999) reports that conveying trust involves mutual dependence, goal congruence and knowledge of competency. Mutual dependency can occur when both parties realize that cooperation is essential for each organization's success (Dozbada, 1999). Dozbada (1999) also points out that goal congruence is achieved when both organizations are driven to maximum benefit from the partnership. Supplier competency is usually concerned with the

organization's capabilities, risk factors, cost structure and overall relationship potential (Dozbada, 1999).

Dunn and Young (2004) offer that partnerships require a high level of information sharing. Robust information sharing is the key to successful collaboration, consultation and decision making (Dunn and Young, 2004). However, the nature of the information shared is often privileged and a violation of trust through inappropriate use of or inability to protect the information may cause mistrust and even fracture the relationship (Young and Dunn, 2003; McHugh et al., 2003).

### ***Communication and Information Technology.***

Advances in information technology have facilitated the integration of information flow and has increased collaboration across supply chains (Smith, Watson, Baker and Pokorski, 2007). In order to maintain mutually beneficial relationships via the small business program, there must be a communication structure, a communication plan and an information sharing infrastructure (Rainer and Turban, 2009). A good alliance requires internal and external communications as well as tracking and reporting and provides a way to mutually plan, account for fluctuations and problem solve based on knowledge of both organizations (Roberts, 2003).

Information technology has proved to be a catalyst for closer partnering, but it can also provide a means to train buyers and suppliers on a wide range of topics and to increase awareness about a small business program within the organization (Handfield and Edwards, 2005). Richards and Ballenger (2005) suggest that e-mail, web sites and on-line registration tools are useful for increasing information about small businesses during the procurement process. When a small business is identified by a company

website or registration tool, it would be prudent to list the entity in a central database of suppliers that can be accessed by buyer and procurement departments (Handfield and Edwards, 2005). Handfield and Edwards (2005) also point out that information technology applications can be used to monitor multi-tier small business contract spending across the organization, supplier lead-time adherence, quality and delivery reliability.

### ***Team Oriented Approach.***

Supply chain management and small business initiatives require teaming internally and externally (Kerr, 2006; McHugh et al., 2003). Kerr (2006) suggests that internal small business initiatives rely on cross functional buy-in and sustained support. According to Roberts (2003), buyer and supplier teaming supports mutual planning, collaborating toward better efficiencies and more commitment to working through problems together. Cross-functional teams that include representation from the buyer and supplier can ensure the necessary long-term goals and strategy, short term issues, performance measures, web-based systems, and problem resolution processes, to name a few, are identified and implemented to ensure high performance (Merkle and Kerr, 2004).

### ***Goals and Performance Measures.***

It is imperative to identify expectations from small businesses and to clearly outline actionable goals and performance measures (Handfield and Edwards, 2005). Nesby and Yeater (1996) asserted that accountability must be part of the small business program monitoring system and that all purchasers throughout the organization should



have small business purchasing goals as criteria in performance evaluations.

Accountability reinforces the commitment to diversity and any unattained goals should be noted along with specific reasons and a correction strategy (Nesby and Yeater, 1996).

Terrill (2007) also supports individual goals for each buyer rather than an overall department diverse supplier spend goal. Moreover, Terrill (2007) suggests that goals should be disseminated from the corporate level to the department and finally down to the buyer.

Richards and Ballenger (2005) argue that accountability, goals and performance measures are essential for the success of a small business program. Accountability is credited with being a means to ensure buyers are delivering on their commitment to small businesses and conversely to ensure that small businesses are providing the best value (Richards and Ballenger, 2005). Richards and Ballenger present two perspectives on accountability: 1) looking internally identifies how effectively the organization is using small businesses and 2) looking externally is used to gauge the performance of small businesses as compared to larger businesses.

A partnership agreement between the organization and small business should include a plan for what to measure, who measures and how the findings are communicated (Dunn and Young, 2003). Dunn and Young (2003) and Merkle and Kerr (2004) suggest that suppliers could measure themselves and report to the buyer regularly. There are several software tools available to gauge accountability (Dunn and Young, 2003). No matter the method that is employed to compile and generate information,

quarterly reports are suggested to be useful for monitoring goals, performance measures and progress of the small business program (Nesby and Yeater, 1996).

The literature identifies the most common goal as being based on procurement dollars and the percent total dollars spent on small business contracts (Merkle and Kerr, 2004). Nesby and Yeater (1996) identified that the report(s) should include the percentage of contracts awarded to diverse suppliers, progress toward diverse supplier development and the number of diverse suppliers contracted in each year (to be compared with past years). Moreover, it is suggested that primary suppliers submit similar reports that are included with the overall small business performance report sent to the CEO and the small business program director (Nesby and Yeater, 1996).

### ***Recognition.***

Everyone likes a thank you. Acknowledging and celebrating accomplishments can have a positive impact on teamwork at many levels (Terrill, 2007). A program imperative, according to Handfield and Edwards (2005), is creating policies that enable and reward efforts toward the growth of the small business program in combination with other goals. Nesby and Yeater (1996) note that recognizing personnel contributing to the success of the small business program should be done as goals are met and can create recommitment to the program.

### ***Development and Support Programs.***

Small business development may be the weakest link in the supply chain (Handfield and Edwards, 2005). A fundamental element of small business program success is supplier development that can raise the competency of the supplier and their ability to remain viable (Conrad et al., 2000). Some small businesses may require

financial assistance for expansion and investment in new technology and companies can assist the supplier by introducing them to the financial community or providing leverage for financing (Nesby and Yeater, 1996). Assisting with the development of the diverse supplier base can ensure that they are competitive and competent and capable of maintaining mutually beneficial partnership (Terrill, 2007). Development of small businesses and partnerships can be accomplished via strategic alliances, mentor-protégé relationships and other forms of support.

### ***Training.***

Training for buyers and suppliers can help build effective activities and initiatives to grow a small business program (Frontczak, 2001). Dunn and Young (2003) note that for the training program to be effective it must be implemented at all levels from high level managers to unit level buyers and suppliers. Education opportunities and programs are available through the NMSDC as well as the Department of Defense Small Business Office (2008) at [www.acq.osd.mil/sadbu](http://www.acq.osd.mil/sadbu).

The government also sponsors programs that entail facilitation of a mentor-protégé relationship between the small business and a company with a small business program (Handfield and Edwards, 2005). Richards and Ballenger (2005) report that mentor-protégé relationships aid in technology development as well as attracting new talent and qualified professionals to small businesses. Development assistance can be provided by the mentor in the form of counseling, business expertise, training, equipment expertise, and computer hardware and software etc (Min, 1999). The protégé uses the developmental assistance to become better able to satisfy the mentor's requirements, improve effectiveness, increase capabilities and quality (Min, 1999). Frontczak (2001)

also recommends that internal small business or diversity leaders and managers can bridge their experience gaps by being mentored by someone outside of their own organization. Having a mentor in a similar small business program leadership role can foster the exchange of obstacles and pitfalls that may need to be overcome to ensure long-term program success (Fronczak, 2001). Mentor-protégé programs can also promote long-term relationships with small businesses (Min, 1999).

### ***Long-term Relationships.***

A buyer-supplier relationship paradigm of arms-length contractual relationships needs to change to a mindset of long-term cooperative contracts (McHugh et al., 2003). Supplier management has shifted from a tactical to strategic function and longer term relationships provide the foundation for attaining added value and innovation in the globalized, competitive marketplace (Yuva, 2005). Another perspective on long-term relationships is offered by Dozbada (1999: 1) who contends that the more tradition price-based relationships are giving way to long-term relationships based on “total cost, trust, flexibility, innovation and quality”. This results in a relationship culture rather than a transactional culture (Dozbada, 1999).

A relationship based on permanence assists the buyer and supplier better understand their respective organization’s business and technical issues which aides in problem solving and ultimately leads to a long-term mutually beneficial relationship (Dozbada, 1999). Partnership arrangements are used to develop the long-term relationships that create long-term collaborative based trust (Whitfield and Landeros,

2006). Whitfield and Landeros (2006), report that sharing risks and rewards in a long-term cooperative relationship helps focus on continuous improvement and can lead to superior performance. The use of long-term contracts with small businesses not only assists small business efforts, but also increases the small business's chance of success and survival (Whitfield and Landeros, 2006). The long-term relationship benefits the small business by increasing quality and volume, and the buyer benefits from overall lower costs and a more attentive supplier (Whitfield and Landeros, 2006).

### ***Multi-tier Efforts.***

Value can be added to the small business program by instituting second-tier small business spend targets (Richard and Ballenger, 2005). Sharma et al., (2008) suggest that the increased use of second-tier initiatives is causing more businesses to increase their commitment to small business contracts because there is an increasing cost of losing customers due to not having a small business program. A second-tier supplier program can help identify and support suppliers who are not able to support the buyer directly, but are able to partner with first-tier suppliers via sub-contracts or joint venture arrangements (Nesby and Yeater, 1996). Collaborative relationships provide better understanding up and down the supply chain and the same strategies used for first-tier suppliers can be applied to second-, third- and fourth-tier suppliers (Yuva, 2005). Multi-tier relationships do not occur overnight, but in the end “it is not a situation where you negotiate up and down the supply chain to drive out cost in the absence of increasing value and win-win takes on a different meaning where the focus is on value for all parties” (Yuva, 2005: 7). Table 6 summarized the potential bridges from small business program success.

**Table 6. Potential Bridges for Small Business Programs**

<b>Bridge</b>	<b>Reference</b>
Executive Commitment and Involvement	Kapps and Banks (2008); Whitfield and Landeros (2006); Handfield and Edwards (2005); Min (1999); Terrill (2008); Dozbada (1999); Nesby and Yeater (1996); Kapp and Banks (2008); Terrill (2007), Kerr (2006); Smith et al. (2008); Auskalnis et al. (1995); Conrad et al. (2000)
Formal Policy	Kapps and Banks (2008); Terrill (2007); Kerr (2007); Smith et al. (2008)
Action Plans	Kapps and Banks (2008)
Dedicated Management and Staff	Kapps and Banks (2008); Minn (1999); Terrill (2007)
A Dedicated Budget	Kapps and Banks (2008); Minn (1999); Terrill (2007)
Buyer and Supplier Training	Kapps and Banks (2008); Frontczak (2001); Dunn and Young (2003); Department of Defense Small Business Office (2008); Terrill (2008)
Accountability for Program Success	Kapps and Banks (2008); Nesby and Yeater (1996)
Tracking, Reporting and Monitoring Systems	Kapps and Banks (2008); Nesby and Yeater (1996)
Internal Communications at all levels	Kapps and Banks (2008); Richards and Ballenger (2005); Minn (1999); Terrill (2007); Roberts (2003); Dunn and Young (2004)
External Communications	Kapps and Banks (2008); Roberts (2003); Dunn and Young (2004)
Program Installed and Implemented in Structured and Incremental Manner	Kapps and Banks (2008); Smith et al. (2008)
Committed Champions	Frontczak (2001); Kerr (2006)
Supplier Diversity Strategy	Frontczak (2001); Nesby and Yeater (1996); Dunn and Young (2004)
Paradigm Shifts to Overcome Cultural Barriers	Whitfield and Landeros (2006); Handfield and Edwards (2005); Min (1999); Terrill (2007); Dozbada (1999); Nesby and Yeater (1996); Kapp and Banks (2008); Terrill (2008); Kerr (2006); Smith et al. (2008); Auskalnis et al. (1995)
Reward and Recognition Systems	Whitfield and Landeros (2006); Handfield and Edwards (2005); Min (1999); Terrill (2007); Dozbada (1999); Nesby and Yeater

	(1996); Kapp and Banks (2008); Terrill (2008); Kerr (2006); Smith et al. (2008); Auskalnis et al. (1995)
Included in the Corporate Strategy	Whitfield and Landeros (2006); Handfield and Edwards (2005); Min (1999); Terrill (2007); Dozbada (1999); Nesby and Yeater (1996; Kapp and Banks (2008); Terrill (2008); Kerr (2006); Smith et al. (2008); Auskalnis et al. (1995); Frontczak (2001)
Linking Purchasing to Corporate Long-Term Strategies and Objectives	Whitfield and Landeros (2006); Frontczak (2001)
An Executive Steering Committee	Handfield and Edwards (2005)
Include supplier diversity goals in Performance Plans and Performance Reviews	Handfield and Edwards (2005); Nesby and Yeater (1996)
Identify and Discover Suppliers Who Meet the Organization's Needs	Nesby and Yeater (1996); Frontczak (2001); Smith et al. (2008); Handfield and Edwards (2005); Kapp and Banks (2008)
Dedicated Staff for Outreach and Identification and Discovery	Frontczak (2001)
Active Participation in Local, Regional, and National Supplier Development Councils	Auskalnis et al. (1995); Nesby and Yeater (1996); Kapp and Banks (2008); Smith et al. (2008); Minn (1999); Richards and Ballenger (2005); Terrill (2007)
Use On-Line Resources for Internal and External Communication	Handfield and Edwards (2005)
Evaluate the Existing Supplier Bases for Those That are Certified as Small Businesses	Denslow and Giumpiper (2008)
Partnership Agreements	Dozbada (1999); Whitfield and Landeros (2006)
Collaboration and Trust	McHugh et al. (2003); Roberts (2003), Dozbada (1999); Steffansson and Russell (2008)
Formal Communication Structures and Information Sharing Agreements	McHugh et al. (2003); Dunn and Young (2004); Smith et al. (2008); Smith et al. (2007); Steffansson and Russell (2008)
Strategic Alliances	Nesby and Yeater (1999); Dunn and Young (2004); Roberts (2003)
Bi-Directional Information Flow	Smith et al. (2007); Steffansson and Russell (2008)
Central Database of Suppliers to Be Used By Buyer and Procurement Departments	Richards and Ballenger (2005); Handfield and Edwards (2005)
Monitor Multi-Tier Diversity Contract Spending Across the Organization	Handfield and Edwards (2005); Richard and Ballenger (2005); Sharma et al. (2008);

	Nesby and Yeater (1996); Yuva (2005)
Teaming Internally and Externally	Kerr (2006); McHugh et al. (2003); Roberts (2003)
Cross-Functional and Cross-Organization Teaming	Roberts (2003); Merkle and Kerr (2004)
Identify Expectations from Suppliers and Clearly Outline Actionable Goals	Handfield and Edwards (2005)
Monitor Program Progress Quarterly	Nesby and Yeater (1996)
Performance Measurement and Goals Based on Procurement Dollars Spent on Diverse Supplier Contracts, Percentage of Contracts Awarded, Progress Toward Diverse Supplier Development and Number of Diverse Suppliers Under Contract	Kapps and Banks (2008); Smith et al. (2008); Merkle and Kerr (2004); Dunn and Young (2003); Nesby and Yeater (1996)
Development and Support Programs to Include Mentor-Protégé Relationships, Counseling, Business Expertise, Equipment Expertise, Computer Hardware and Software	Min (1999); Handfield and Edwards (2005); Nesby and Yeater (1996); Dunn and Young (2003); Conrad et al. (2000); Smith et al. (2008); Terrill (2007)
Internal Diversity Leadership Mentored by Someone Outside Their Organization	Frontczak (2001)
Long-Term Relationships with Suppliers	Yuva (2005); Dozbada (1999); Whetfield and Landeros (2006)

### Identification of Research Gaps in the Literature

The available literature provided a wealth of small business and supplier diversity program suggestions and lessons learned in separate accounts. Unfortunately, the study did not uncover one single research project that presented benefits, barriers to success, bridges to overcome barriers and critical success factors. This study attempted to fill in this gap in the research by identify the benefits, barrier, bridges and success factors and compiling them into one repository. Next, propositions were created based on the repository and were then used to compare how these factors related to actual small business programs. Finally, based on results of the case studies data analyses,



recommendations regarding small business program strategy, implementation, development and sustainment will be provided.

### **Summary**

To better understand small business programs, this chapter first addressed the history of the small business programs and initiatives, the history of the SBA, Federal regulations, the definition of small businesses and diverse suppliers and subcategories. Next, the statutory requirement levied on Federal agencies vice the business case for commercial industry small business partnerships was discussed. The literature review then explained small business program benefits, barriers to program success, bridges that can be used to overcome barriers and finally, overall program critical success factors.

Based on the research focus, the chapter provided a definition of benefits, barriers and bridges and explained how they would be related to better understanding small business programs and their success or failure. The chapter also entailed a qualitative research analysis of the literature and identified the benefits, barriers, bridges and critical success factors used in the study's case interviews and in the development of the propositions. Finally, the gaps in the literature were explained and specifically conveyed that there is a lack of one stand-alone study that presents and tests small business program benefits, barriers, bridges and critical success factors in any detail.

### **III. Methodology**

#### **Overview**

The purpose of this chapter is to present and examine the methodology, techniques used to answer the research questions and overall objective of this research. This chapter restates the research objective and introduces the methodology, research paradigm, research phases and discusses the research design implemented for the study. Next, the chapter presents the case study candidates, data collection methods and the analysis methods employed to create the findings and conclusions that are presented in chapters IV and V. This chapter is concluded by explaining the strategy and methods exercised to realize reliability and validity.

#### **Restatement of the Research Objective**

The research objective is to examine the small business program benefits, barriers, bridges and critical success factors, indentified in the literature and through multiple case study interviews, to suggest how to improve small business program performance and strategy. As suggested by Fawcett et al. (2007), a better understanding of these factors could enable leaders and managers improve small business program implementation, sustainment and development decisions and strategy.

#### **Methodology of Research**

Multiple case studies were the appropriate and preferred method for this research where several 'how' and 'what' questions required exploratory investigation to provide an answer (Yin, 2003). Choosing the best methods for attracting and integrating small businesses into a supply chain is largely a matter of opinion and difficult to support with

empirical data. Case studies provided valuable insight into lessons learned by personnel involved with past or current small business initiatives. Subject matter expert (SME) interviews added to this knowledge base by providing benefits, barrier, bridges and success factors from multiple small business or supplier diversity programs.

Case studies of existing small business and small business programs through interviews with small business program SMEs were used to gain a more in-depth understanding of the benefits, barriers and bridges and critical success factors of small business programs. Case studies primarily took the form of interviews with personnel who had intimate experience with pertinent small business programs. According to Ellram (1996: 97), “a case study would be desirable in those circumstances because it provides depth and insight into little known phenomenon” and “qualitative methods are preferred because they provide a depth and richness, allowing the researcher to really probe the how and what questions and construct idiographic knowledge.”

### **Research Paradigm**

The case study strategy is used to contribute to the knowledge or understanding of many concepts and situations (Yin, 2003). According to Yin (2003), case study inquiries benefit from development of theoretical propositions that guide data collection and analysis. The theoretical concepts, useful for exploratory research, guide the design and data collection for successfully completing case studies (Yin, 2003). Preliminary concepts were developed at the beginning of the case study through a literature review with the purpose of advancing knowledge and understanding of small business programs and to develop the study’s questions (Yin, 2003).

Yin (2003) suggests that the development of concepts also aids in the definition of the research unit of analysis and the potential case study candidates. “Without guidance from the preliminary theoretical concepts, all these choices may be extremely difficult and hamper the development of a rigorous case study” (Yin, 2003: 3). The case study strategy is an all-encompassing and comprehensive research method and covers the logic of design, data collection techniques and approaches to data analysis (Yin, 2003).

### **Research Design**

This study entailed exploratory research and the use of multiple case studies. The intent was to determine the benefits, barriers, bridges and success factors associated with small businesses or small business programs. A literature review was used to identify small business program benefits, barriers, bridges and critical success factors that have been highlighted in previous research and publications. The literature review and the findings were used to develop the research propositions that would give clarity and detail to the study’s overarching questions (Yin, 2003).

Multiple case studies were conducted with eight organizations (two Department of Defense agencies, four USAF, and three commercial) that have existing small business or supplier diversity programs and initiatives. Ellram (1996), reports that a single case is appropriate when a well formulated theory is being tested. In this study, “absent a well formulated theory to test, multiple case studies were required” (Ellram, 1996: 102). The multiple case studies can also assist with drawing cross-case conclusions about small business programs (Yin, 2004).

Yin (2003), notes the following components as important for case study research design:

- 1) A study's questions
- 2) Its propositions (if any)
- 3) Its unit(s) of analysis
- 4) The logic linking that data to the propositions
- 5) The criteria for interpreting the findings

The choices made for each component can be revisited at any time as a “result of discoveries arising during your data collection” (Yin, 2003: 24). Moreover, “such revelations can be enormously important” and lead to modification or alteration of the original research design, but with the understanding that the needed flexibility should not decrease the rigor of the procedures. The 5 items are discussed in greater detail in the following sections.

### ***Study's Questions.***

Following Yin's (2003) case study research design components, the first step in the design of this case study research was to develop the questions that the study sought to answer. A literature review on small business history, benefits, barriers, bridges and critical success factors was completed to develop questions and propositions pertinent to the topic. The overarching research questions are as follows:

- ❖ *What benefits do organizations receive from implementing initiatives that increase integration of small businesses into the supply chain?*
- ❖ *What are the barriers that organizations face when implementing, developing and sustaining a small business program?*
- ❖ *What are the bridges to effective implementation, development and sustainment of a small business program?*
- ❖ *What are the critical factors or components for small business program success?*

The investigative questions that guided the research and provided a framework for the study were developed from the literature review and are as follows:

*IQ<sub>1</sub>: What are the benefits of a small business program?*

*IQ<sub>2</sub>: What are the barriers to small business program implementation, development and sustainment?*

*IQ<sub>3</sub>: Does senior leadership involvement and support impact the implementation, development and sustainment of a small business program?*

*IQ<sub>4</sub>: How do corporate or enterprise strategic level efforts affect the success of a small business program?*

*IQ<sub>5</sub>: What metrics are used to indicate the success or failure of small business program initiatives?*

*IQ<sub>6</sub>: How are small business program managers and staff held accountable for small business program success?*

*IQ<sub>7</sub>: Does recognition of small business program successes enhance staff performance?*

*IQ<sub>8</sub>: How do long-term, mutually beneficial relationships affect the organization and the small business partner?*

*IQ<sub>9</sub>: What are small business program critical components and success factors?*

### ***Propositions.***

The ‘how’ and ‘what’ questions developed in the first component were given clarity and detail in the next component of the proposed case study research design and assisted the researcher with determining what to study (Yin, 2003). The propositions that were developed pointed to “important theoretical issues” and revealed “where to look for relevant evidence (to define and ascertain the extent of specific benefits to each organization)” (Yin, 2003: 22). The following propositions were also developed via the extensive literature review and examined the benefits, barrier, bridges, barriers and critical success factors (Fawcett et al., 2007) as they relate to small business programs:

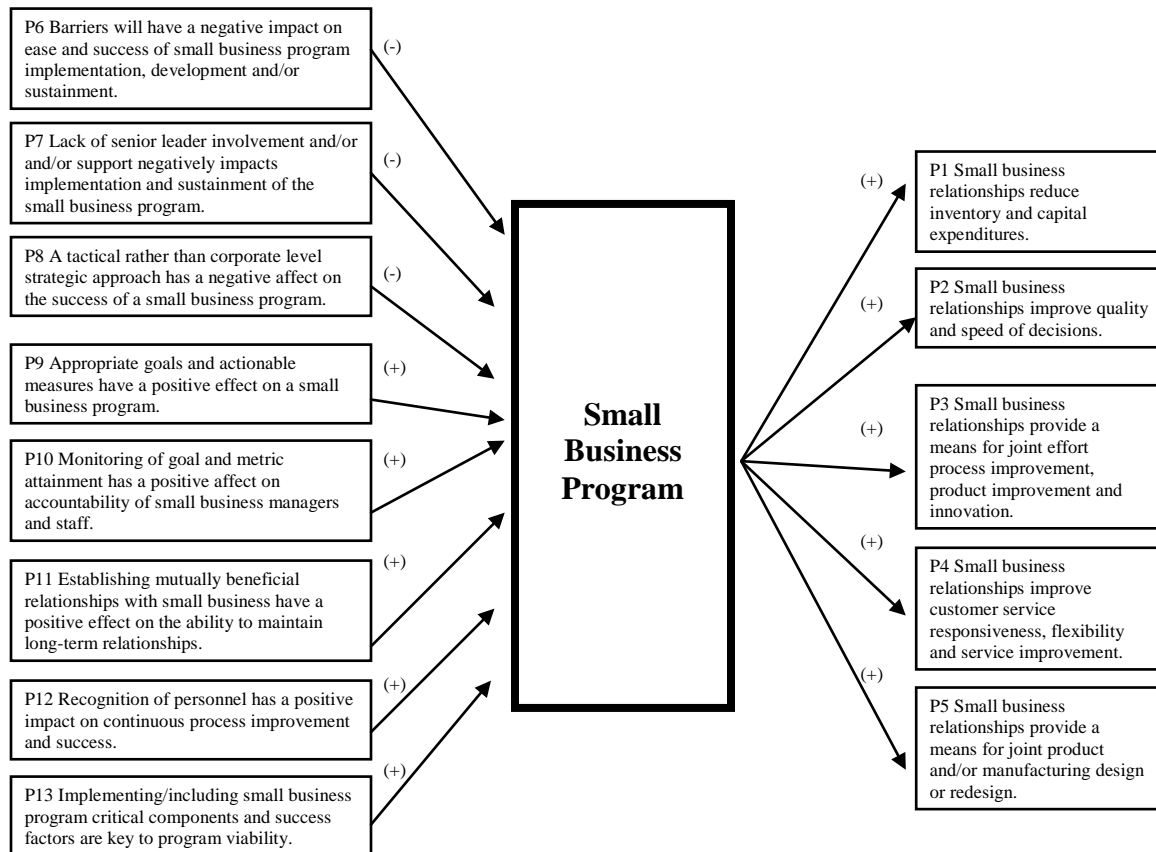
- P<sub>1</sub>: Small business contracts reduce inventory and capital expenditures.*
- P<sub>2</sub>: Small business contracts and relationships improve quality and speed of decisions.*
- P<sub>3</sub>: Small business contracts and relationships provide a means for joint effort process, product improvement and innovation.*
- P<sub>4</sub>: Small business contracts and relationships improve customer service, responsiveness and, flexibility.*
- P<sub>5</sub>: Small business relationships provide a means for joint product and/or manufacturing design or redesign.*
- P<sub>6</sub>: Barriers will have a negative impact on ease and success of small business program implementation, development and/or sustainment.*
- P<sub>7</sub>: Lack of senior leader involvement and/or support negatively impacts implementation and sustainment of the small business program.*
- P<sub>8</sub>: A tactical rather than corporate level strategic approach has a negative affect on the success of a small business program.*
- P<sub>9</sub>: Appropriate goals and actionable measures have a positive effect on a small business program.*
- P<sub>10</sub>: Monitoring of goal and metric attainment has a positive affect on accountability of small business managers and staff.*
- P<sub>11</sub>: Establishing long-term, mutually beneficial relationships with small businesses have a positive effect on the organization and the small business.*
- P<sub>12</sub>: Recognition of personnel has a positive impact on program continuous process improvement and success.*
- P<sub>13</sub>: Implementing/including small business program critical components and success factors are keys to program viability.*

The relationships between research questions, investigative questions and the related proposed propositions are shown in Table 7. Figure 1 depicts the propositions' respective proposed positive or negative impacts.

**Table 7. Research Investigative Questions and Propositions**

<b>Research Question</b>	<b>Investigative Question</b>	<b>Proposition</b>
1. What benefits do organizations receive from implementing initiatives that increase integration of small businesses into the supply chain?	1. What are the benefits of small business program implementation, development and sustainment?	P1 Small business contracts reduce inventory and capital expenditures.
		P2 Small business contracts and relationships improve quality and speed of decisions.
		P3 Small business contracts and relationships provide a means for joint effort process, product improvement and innovation.
		P4 Small business contracts and relationships improve customer service, responsiveness and flexibility.
		P5 Small business relationships provide a means for joint product and/or manufacturing design or redesign.
2. What are the barriers that organizations face when implementing, developing and sustaining a small business program?	2. What are the barriers to small business program implementation, development and sustainment?	P6 Barriers will have a negative impact on ease and success of small business program implementation, development and/or sustainment.
	3. Does senior leader involvement and support impact the implementation, development and sustainment of a small business program?	P7 Lack of senior leader involvement and/or support negatively impacts implementation and sustainment of the small business program.
	4. How do corporate or enterprise strategic level efforts affect the success of a small business program?	P8 A tactical rather than corporate level strategic approach has a negative affect on the success of a small business program.
3. What are the bridges to effective implementation, development and sustainment of a small business program?	5. What metrics are used to indicate the success or failure of small business program initiatives?	P9 Appropriate goals and actionable measures have a positive effect on a small business program.
	6. How are small business program managers and staff held accountable for small business program success?	P10 Monitoring of goal and metric attainment has a positive affect on accountability of small business managers and staff.
	7. How do long-term, mutually beneficial relationships affect the organization and the small business partner?	P11 Establishing long-term, mutually beneficial relationships with small businesses have a positive effect on the organization and the small business.
	8. Does recognition of small business program successes enhance staff performance?	P12 Recognition of personnel has a positive impact on continuous process improvement and success.
4. What are the critical factors or components for small business program success?	9. What are small business program critical components and success factors?	P13 Implementing/including supplier diversity program critical components and success factors are keys to program viability.





**Figure 1. Propositions and Impacts**

Primarily ‘how’ and ‘what’ questions were used to gain a better understanding of each small business program and the perceived benefits, barrier, bridges and success factors. Each interview used standard probing ‘how’ and ‘what’ questions that could allow provocation of in depth explanations. The questions garnered responses from the participants that provided additional insights, lessons learned, success factors and cautions regarding small business programs. The results and responses are presented within Chapter IV Analysis and Results.

### ***Unit of Analysis.***

According to Yin (2003), the initial research question provides a tentative definition of the unit of analysis. The unit of analysis had a direct impact on the information gathered and from whom it was gathered (Ogden, 2003). The research objective was to identify benefits, barriers, bridges and critical success factors for Small Business 'Programs'. Therefore, the research attempted to merely identify elements of each category and any relationships across these cases, but did not define each item that emerged in each category or explore possible causal relationships. It is beyond the scope of this research to examine fidelity of definition of terms and possible causal relationships across the cases. The case does not examine the details of senior leadership support, corporate strategy inclusion, policies or performance measures. It was assumed that the benefits, barriers, bridges and critical success factors that were identified could be used by the case study sponsor and participants for benchmarking or lessons learned that could guide activities or improvement of any small business or supplier diversity program.

### ***The Logic Linking the Data to the Propositions.***

The fourth component in Yin's (2003) case study design encompasses showing how the study used the resulting data to support the propositions. Pattern matching was employed to identify any cross-case commonalities and/or disparities regarding the propositions. The analysis of the study data involved consideration of patterns that may have developed in each category for benefits, barriers, bridges and critical success factors. Analysis of the patterns entailed consideration of data that may support or refute the theoretical propositions and the proposed impacts of each proposition. This type of

analysis assisted the researcher with identifying whether each proposition and the respective proposed impact were supported, moderately supported or not supported.

### ***The Criteria for Interpreting the Findings.***

Yin (2003) introduces pattern matching as a promising approach for case studies. Using pattern matching and explanations are effective ways of interpreting qualitative types of findings (Yin, 2003; Patton, 2002; Ogden, 2003). Identification of patterns can assist in the evaluation and explanation of propositions and any commonalities that may exist across studies (Patton, 2002 and Ogden, 2003). Moreover, the pattern matching method affords discovery and explanation of the patterns and how they relate to the theoretical propositions (Patton, 2002). The patterns, explanations and propositions and impact considerations are discussed in Chapter IV Analysis and Results.

### ***Sources and Data Collection.***

Ten case studies were accomplished with a single respondent per case. According to Ellram (1996; 102), six to ten cases are sufficient to provide “compelling evidence to support or reject an initial set of propositions.” For this research, as suggested by Ellram (1996: 103), the sample was selected to “gain accessibility to the type of phenomenon of interest.” Criteria were developed to screen potential case study organizations, and after determining qualified and willing participants, three Federal agency, four USAF and three commercial industry subject matter experts were interviewed. Specific criteria were used to identify, screen and select the case study participant organizations and respondents. The criteria for inclusion in the study were 1) the organization had a small business or supplier diversity program and 2) the respondent had 5 or more years of experience as a small business program manager or small business specialist.

The research chose organizations from within the USAF, DoD and commercial industry in order to better generalize the findings across all small business and supplier diversity programs and strengthen the case. Requiring the participant to have at least 5 years of experience was also instituted to strengthen the case.

Letters of invitation and a research summary (Appendix B) were e-mailed to 36 organizations that had small business or supplier diversity programs in place for 5 or more years. Of the 36 invited organizations, 18 organizations did not respond to the invitation or secondary follow-up telephone or e-mail invitations. Responses were received from 16 organizations with 10 willing to participate and 8 that were unable to participate. Initial contact was made with the potential participant to ascertain if they were qualified to take part in the study. The 10 willing organizations were able to provide participants who met the criteria in order to participate in the study. The participating companies and their releasable information are contained in Table 8. Background information on individual case studies can be found in Appendix C.

**Table 8. Case Study Participating Organizations**

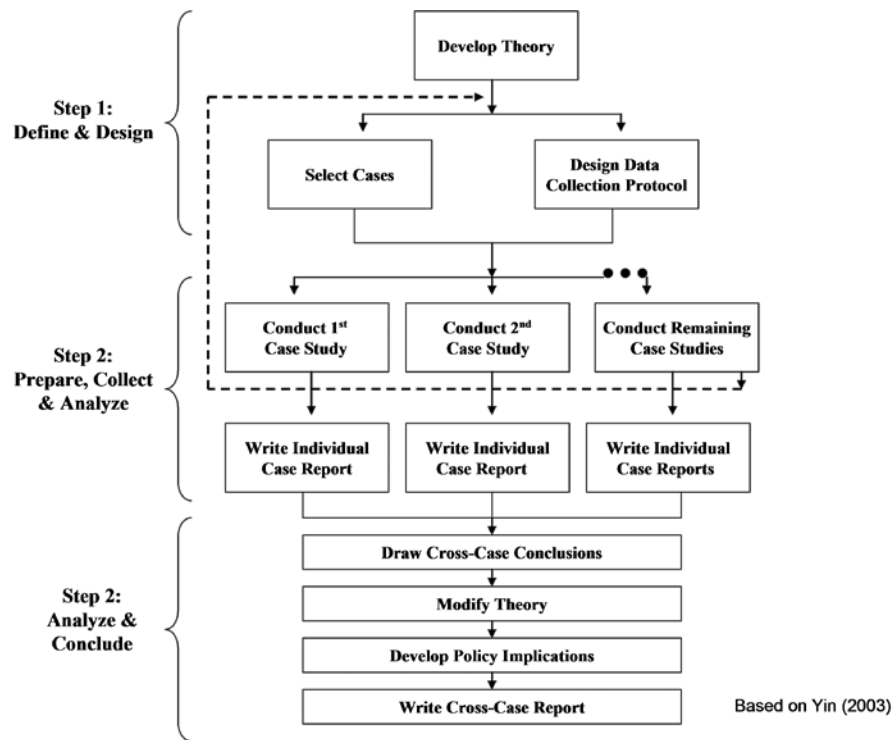
<b>Organization</b>	<b>Industry Type</b>	<b>SDP &gt; 5 years old</b>	<b>Respondent with &gt; 5 years small business experience</b>
<b>USAF Small Business Program Office</b>	<i>USAF</i>	Yes	Yes
<b>USAF Small Business Support and Development Program</b>	<i>USAF</i>	Yes	Yes
<b>Office of the Secretary (OSD) of Defense Small Business Program Office</b>	<i>Department of Defense (DoD)</i>	Yes	Yes
<b>SAIC</b>	<i>Scientific, engineering, systems integration and technical services and solutions</i>	Yes	Yes
<b>Defense Logistics Agency (DLA) Headquarters</b>	<i>DoD</i>	Yes	Yes
<b>Defense Supply Center Columbus (DSCC)</b>	<i>DoD</i>	Yes	Yes
<b>Lockheed-Martin</b>	<i>High-Technology</i>	Yes	Yes
<b>Anonymous</b>	<i>Communications</i>	Yes	Yes
<b>USAF Materiel Command (AFMC) Small Business Office</b>	<i>USAF</i>	Yes	Yes
<b>USAF Research Laboratory (AFRL) Small Business Office</b>	<i>USAF</i>	Yes	Yes

The individual case studies were conducted following Yin's (2003) interview guidance. The first interview was the pilot study and resulted in two of the interview questions relating to critical success element and components being combined into one question and the use of 'small business program' to identify small business programs and

supplier diversity programs. Each interview was approached with standardized questions that permitted open-ended responses to interview questions and allowed each respondent to interject data not specifically required by the listed interview questions. Seven interviews were able to be conducted face-to-face which presented the opportunity to adjust to non-verbal cues. Telephone interviews were completed with three of the respondents who were located at geographic locations outside the researcher's drivable distance. Face-to-face and telephone interviews were recorded using a digital device to ensure interview summary accuracy. A case study database was maintained not only to assure reliability and provide a central repository, but to also provide a formal, retrievable database of evidence that can be reviewed. The elements of the case study database include interview notes, interview transcripts, documents, case-study write-ups, tables, figures, and other items of opportunity that emerged during the case study process.

### **Data Analysis Methods**

A replication approach for multiple case studies is illustrated by Yin (2003) and indicates the steps that must be followed. The 3 major steps and their sub-steps are shown in Figure 2.



**Figure 2. Multiple-Case Study Method**

The final steps in Yin's (2004) list of components involve linking data to propositions and criteria for interpreting the findings. The approaches used for analysis of the case study data include pattern matching, explanation building, within-case analysis and cross-case analysis (Yin, 2004). Pattern matching and data analysis were accomplished iteratively to identify commonalities or rival theories that could be identified from each case study. Every case's data was analyzed multiple times to build explanations about the each case, the investigative questions and propositions. To become intimately familiar with each case, a within-case analysis was conducted that led to determination of the patterns for each case. Cross-case analysis was then implemented

to compare each case against the others and provided the ability to identify similarities and differences across the case studies.

Several charts and tables were constructed to assist with explanation, data reduction and summarization of the collected data (Ogden, 2003). These approaches and data are addressed in Chapter IV Analysis and Results. Pertinent recommendations and conclusions are contained in Chapter V Conclusion.

### **Reliability and Validity of the Research Design**

It is important to identify methods to assure reliability and validity during the research design procedures. Yin (2003) points out that tests of reliability and validity used to assess the research design need to be considered during the design stage. Four tests will be addressed as listed in Table 9 (Yin, 2003: 34):

**Table 9. Case Study Tactics That Assist with Reliability and Validity**

<b>Test</b>	<b>Definition</b>	<b>Tactics</b>	<b>Phase of Research</b>
<b>Construct Validity</b>	Establishing correct operational measures for the concepts being studied.	<ul style="list-style-type: none"> <li>• Multiple sources of Evidence</li> <li>• Chain of Evidence</li> <li>• Have Key Informants review draft report</li> </ul>	<ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Data Collection</li> <li>• Composition</li> </ul>
<b>Internal Validity</b>	Establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships.	<ul style="list-style-type: none"> <li>• Do pattern-matching</li> <li>• Do explanation building</li> <li>• Address rival explanation</li> <li>• Use logic models</li> </ul>	<ul style="list-style-type: none"> <li>• Data Analysis</li> <li>• Data Analysis</li> <li>• Data Analysis</li> <li>• Data Analysis</li> </ul>
<b>External Validity</b>	Establishing the domain to which a study's findings can be generalized.	<ul style="list-style-type: none"> <li>• Use replication logic in multiple-case studies</li> </ul>	<ul style="list-style-type: none"> <li>• Research Design</li> </ul>
<b>Reliability</b>	Demonstrating that the operations of a study – such as the data collection procedures – can be repeated, with the same results.	<ul style="list-style-type: none"> <li>• Use Case Study Protocol</li> <li>• Develop case study database</li> </ul>	<ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Data Collection</li> </ul>

Yin (2003: 34)



### ***Construct Validity.***

Three tactics are available to ensure or improve construct validity and include using multiple sources of evidence, chain of evidence and having the respondents review a draft summary of the interview. Yin (2003) also introduced 6 sources of evidence of which this study used three 1) interviews 2) direct observations and 3) physical artifacts. The multiple face-to-face, focused interviews allowed for direct observations and physical artifacts when the respondent demonstrated computer programs and provided a printout of the queried data and supplied a copy of program policies and initiatives.

### ***Multiple Sources of Evidence.***

Using many different sources of evidence is a major strength of multiple case studies with the rationale being the ability to use triangulation to substantiate the propositions and their proposed impacts (Yin, 2003). Yin (2003), suggests the triangulation of data sources so that events or facts of the case study are supported by multiple sources that can be used to measure the same phenomenon. Triangulating from multiple sources of evidence, all using the same set of research questions, allows corroboration of the same fact or phenomenon and increases the confidence level of the findings (Yin, 2003).

### ***The Chain of Evidence.***

A chain of evidence is used to increase the reliability of the information in the case study and allows an outside observer, the study reader, to follow the chain of evidence and trace all steps from initial research questions to the conclusions (Yin, 2003). Detailed records were kept in the form of written reports and databases from the inception of the study and the planning and preparation for the case studies. Furthermore,

the research project report has been designed in a manner that provides a chronological report of the research journey. The research report first provides the literature review and the resulting research questions, then the methodology and research design that buttressed the data collection and finally the data analysis and results followed by recommendations and conclusions.

### ***Respondent Review of the Draft Report.***

Finally, the last way to ensure construct validity is to have the respondents or informants review the summary of the interview. Case study summaries were provided to each respondent and they were invited to review the report and submit any changes or comments. Allowing the respondents to review the summary reports ensured data accuracy and prevention of misinterpretation. Requested changes were made to the documents as needed and each respondent provided permission to use their respective case study report summaries for data analysis in support of this study.

### ***Internal Validity.***

#### ***Pattern Matching and Explanations.***

This study examined the benefits, barriers, bridges and critical success factors of a small business program, but the researcher never observed the implementation, development or sustainment of a small business program. The analysis portion of this study used pattern matching and explanation building to provide for internal validity. The pattern matching logic is used to compare the results of the case studies and then uses that data to deduce explanations based on the patterns that are produced. Pattern matching was also used to evaluate whether the propositions were supported or refuted

by rival theories. The results, patterns and explanations are detailed in Chapter IV Analysis and Results.

***External Validity.***

***Replication logic.***

Replication logic is similar to scientific experimental findings and multiple experiments where the research goal is to replicate a significant finding in subsequent studies (Yin, 2003). In this study, each case study represents an experiment. The research chose organizations from within the USAF, DoD and commercial industry in order to better generalize the findings across small business and supplier diversity programs and strengthen the case. The benefits, barriers, bridges and critical success factors are believed to be applicable across these organizations. The multiple case study methodology presented by Yin (2003) and summarized in Figure 2 was followed to ensure external validity.

***Reliability.***

The objective of the reliability test is to ensure that a later investigator is able to follow the same procedures and arrive at the same findings and conclusions (Yin, 2003). The study used the case study protocol suggested by Yin (2003) and a case study database to ensure reliability.

***Case Study Protocol and Database.***

The case study protocol and case study database were established during the research design stage with the case study protocol being scrutinized by the academic advisor and sponsor to decrease biases in the research. The study employed an interview guide (Appendix D) and the interview methods and the multiple case study method

suggested by Yin (2003) and Gay and Airasian (2003). The research summary, case study questions and guide for research were completed in compliance with suggested case study protocol etiquette (Yin, 2003 and Gay and Airasian (2003).

The case study database was established to ensure that all case study information, data, documentation and additional materials were located in one repository. The database included the interview guide, organization screening and contact information, completed case studies and documentation that was provided by individual case study respondents. The collection of information provides a means to establish reliability and to allow for information to be retrieved from the database during the study and after study completion.

## **Summary**

Chapter III introduced the methods that were used to answer the overarching questions and objectives of this research. The chapter began with reiterating the objective of the research which was to examine the small business program benefits, barrier, bridges and critical success factors. The methodology for this study employed the multiple-case study method proposed by Yin (2003). The research design was detailed and explained the use of the five components required for case studies. The chapter then explained the sources and collection of data to include the criteria used for case selection and the interview techniques that were employed. Next, the chapter introduced the analysis methods used to create the findings and conclusions that are contained in chapters IV and V. Finally, the chapter explained the methods used to ensure reliability and validity of the research design.

## **IV. Analysis and Results**

### **Overview**

This chapter consists of the data analysis and the findings of ten case studies. These results were used by the researcher to test the propositions in order to answer the nine investigative questions posed in Chapter I. This chapter presents the overarching research areas or questions and the investigative questions that pertained to each research question. This chapter also provides aggregated data analysis from the within-case, cross-case analyses, the findings of the case studies, the ten investigative questions and the thirteen propositions. Finally, the chapter presents the data analysis as it pertains to the propositions related to each investigative question and identified if each proposition outcome was supported, moderately supported or was not supported by the case study data.

### **Investigative Questions**

#### **Small Business Program Benefits**

The researcher used the results of the within-case and cross-case analyses to answer IQ<sub>1</sub>: *What are the benefits of a small business program?* Table 10 lists the results of the data collection which are rank ordered based on respondents identifying them as a benefit in each case. The top five items noted as benefits include, innovation, support to the economy, high quality products and services, flexibility and agility. The top five items noted by the respondents were also identified as benefits in the available literature reviewed for the study.

**Table 10. Small Business Program Benefits**

Benefit	Company										Total
	A	B	C	D	E	F	G	H	I	J	
Innovation*	X	X	X	X	X	X	X	X	X	X	10
Support to the Economy (local & National)*	X	X	X	X	X	X		X	X	X	9
High Quality Products & Services*	X		X	X	X	X	X		X		7
Flexibility*	X	X		X	X		X			X	6
Agility*	X	X		X		X	X	X			6
Keep the market segments competitive			X	X	X	X	X				5
Improved customer satisfaction*			X	X	X	X	X				5
Provide the majority of the nation's jobs	X				X	X			X	X	5
Vital to mission accomplishment	X	X		X					X	X	5
Best new ideas in the market				X	X			X	X		4
Vital to national security	X				X	X			X		4
Allow company to provide best possible solutions			X				X	X		X	4
Willing to risk to bring innovation to market					X	X	X		X		4
Committed to success and buyer satisfaction	X				X	X			X		4
Cost effectiveness*	X			X		X				X	4
Offer a broad range of ideas and capabilities		X			X			X		X	4
Less political and bureaucratic red tape				X	X	X					3
Support for the local communities*			X			X		X			3
Responsiveness to buyer*		X	X	X							3
Diversification through sub-contracting		X			X					X	3
Vital to the Nation's industrial base					X	X				X	3
Competitive advantage*			X				X				2
Improve company profitability			X				X				2
Diversification at all tiers of suppliers*					X		X				2
New patents									X	X	2
Value added products & services						X					1
Faster speed to market							X				1
Provide niche tools and technologies							X				1
Improved customer relationships*								X			1
Broaden the company's perspective								X			1
Efficiency									X		1
Focused on a core competency			X								1
More receptive to buyer input*			X								1

\* Benefit also found in the literature reviewed.

### ***Innovation.***

A USAF respondent noted that “the evidence of how small businesses contribute immensely to innovation is evidenced in the first airplane which was developed by a small business in Ohio”. All of the cases reported that there are small businesses that are capable of providing innovations, products and services that fit some critical niches or needs. According to four out of ten respondents, small business can provide niche product and technology more quickly than large business due to fewer politics and less bureaucracy. Six out of ten case study respondents reported that innovation was the most important benefit and that many small businesses are more willing and able to innovate to meet customer needs.

### ***Support to the Economy.***

The sentiment of nine out of ten respondents was summed up by another USAF respondent when it was stated that “over 90% of American jobs are provided by small businesses and that has a huge effect on the economy and really keeps the National industrial base strong.” Small businesses were perceived as not only providing the majority of the Nation’s jobs and supporting economic health, but also providing vital support to their organizations’ missions. Five out of ten respondents noted that keeping small businesses in the supply chain is essential to economic health.

### ***High Quality Products and Services.***

While seven out of ten respondents noted that high quality products and services are benefits, they differed on the factors contributing to the high quality. Across the case studies the factors that contribute to high quality products and services include pride, patriotism, responsiveness and receptiveness to buyer input, desire to have a positive

impact on customer service, long-term partnerships and concentration on a core competency. A DoD respondent reported that “the quality provided by small businesses is comparable or better than the quality provided by large companies.”

***Flexibility.***

Six out of the ten case study respondents also mentioned that flexibility is a key benefit realized through small business contracts. Three out of the six reported that flexibility allowed small business to be more responsive to requested changes and improvements. Two of the respondents mentioned that fewer politics and less bureaucracy allowed small businesses to be more flexible.

***Agility.***

Agility was mentioned by six out of ten respondents as a benefit that small businesses bring to the table. Three out of the six mentioned that agility leads to the ability to bring products and services to the market more quickly. Two of the six respondents noted that small businesses’ agility allowed them to react more quickly to problems.

The top five responses were presented in greater detail above. Altogether, the respondents identified twenty-eight additional different benefits of small business program and some of them are presented in the following sentences. Related to support to the economy, it was surmised by five of the respondents that small businesses provide a majority of the nation’s jobs. Five of the respondents also mentioned that small businesses are vital to mission accomplishment, help improve customer satisfaction and keep the market segments competitive. Regarding innovation, 4 of the 10 respondents mentioned that small businesses are willing to risk to bring innovation to the market,



offer a broad range of ideas and allow the best possible solutions. Two of the ten respondents also noted that small businesses are instrumental in providing new patents. Cost effectiveness and commitment to the success and satisfaction of the buyer were noted by three of the ten respondents. Furthermore, three of the ten respondents identified that less political and bureaucratic red tape as a benefit that aided in improved responsiveness to the buyer.

### **Small Business Program Barriers**

The within-case and cross-case analyses were used by the researcher to answer IQ<sub>2</sub>: *What are the barriers to small business program implementation, development and sustainment?* Table 11 lists the results of the data collection which are rank ordered based on respondents identifying them as a barrier in each case. The top five items noted as barriers include resistance from internal personnel, process complexity, organization culture, funding and negative perceptions. Of the top five noted by the respondents, complex proposal and contract process, organizational culture and funding were also mentioned as barriers in the literature reviewed for this study.

**Table 11. Small Business Program Barriers**

Barriers	Company										Total
	A	B	C	D	E	F	G	H	I	J	
Resistance from internal personnel			X	X	X	X	X	X	X	X	7
Complex proposal and contract* process	X	X	X	X		X	X		X	X	7
Organizational Culture*			X	X	X	X			X	X	5
Funding*		X					X	X	X		4
Perception that small businesses cannot meet complex requirements					X	X	X		X	X	4
Long-term relationships	X				X	X			X		4
Bundling and consolidation contracts	X				X	X					3
Supplier base reduction efforts*	X				X	X					3
Difficult to find small business to meet high tech contract requirements*						X		X	X	X	3
Risk averse customers			X				X		X		3
Negative perceptions of small businesses	X		X					X		X	3
Unclear RFP expectations*			X			X			X	X	3
Lack of business expertise within the small business*			X	X		X				X	3
Lack marketing expertise			X	X		X					3
Not enough small businesses to meet goals in all classifications			X				X		X	X	3
Large suppliers are preferred for large system integrations				X			X			X	2
Failure to communicate SDP as a value proposition*			X					X			2
Inability to count Prime sub-contracts					X					X	2
Cannot provide economies of scale				X							1
Do not know the levers for supply chain formation and partnerships				X							1
Customers have a preferred brand not provided by a small business					X						1
RFP Data overload on the websites						X					1
Experience void in contracting										X	1
Inconsistent JAG interpretation of new laws										X	1

\* Barrier also found in the literature review.

### ***Resistance.***

Resistance from internal personnel was mentioned as a barrier by seven out of ten case study respondents. Three of the seven respondents reported that resistance came from leadership, acquisition personnel, engineers and/or contracting personnel who are risk averse. Two of the seven respondents mentioned that resistance may be caused by engineers who lack confidence in small businesses' capabilities and ability to meet high technology requirements. Two of the seven respondents also reported resistance may be from lack of a clear understanding that small businesses can be a viable value proposition.

### ***Process Complexity.***

Seven of the respondents mentioned that the government contract and proposal process was complex and difficult. An USAF respondent noted that "the process can discourage small businesses from wanting to become one of our suppliers or small business partners." Two of the respondents mentioned that the Defense Contract Management Agency requirement review process adds to the overall complexity of being a diverse supplier or small business partner. One respondent noted that the small businesses have a steeper learning curve than large businesses when it comes to understanding and being able to navigate the complex proposal and contract process.

### ***Organizational Culture.***

Five out of ten case study respondents noted that lack of an organizational culture that embraces the small business or supplier diversity program can be a barrier. A commercial company respondent mentioned that "having a culture that embraces supplier diversity can help a new supplier integrate more easily." A USAF respondent noted that

a small business program cannot be successful unless there is a “supportive mindset and culture that starts with the very top leadership.”

***Funding.***

Funding was introduced by four out of the ten case study respondents as a barrier to program success. The four respondents noted five funding issues that presented obstacles. First, two of the four respondents indicated that limited SBIR funding caused them to prioritize the requests and only fund one in ten of the proposed SBIR topics. One respondent noted that funding was not adequate to effectively support the development programs. It was also mentioned by one respondent that not all customers are willing to risk funding small business contracts. One respondent also noted that many small businesses lack the funding to survive the lengthy acquisition processes financially. Finally, three of the four respondents reported that it can be difficult for small businesses to secure funding or loans in order to provide the desired amount of product or economies of scale.

***Negative Perceptions.***

Negative perceptions of small businesses were mentioned as a barrier by four out of ten case study respondents. Two of the four respondents reported that there is a negative perception of small businesses within acquisitions and contracting that deters the use of small businesses. One respondent indicated that engineers tend to recognize small business contracts as difficult and time consuming. One respondent also noted that there is a mindset that small businesses do not have the capabilities or abilities to handle complex requirements.

The ten respondents mentioned a total of twenty-four barriers. Beyond the top five already addressed, long-term relationships, bundling contracts, supplier base reduction efforts were noted as hurdles to program success. It was also noted that customers can be risk averse and there is an internal and external negative perception of small businesses. Furthermore, lack of marketing expertise, unclear RFPs and very few high tech small businesses contributed to difficulty in identifying and discovering small businesses to meet organizational needs. The pros and cons of long-term relationships is discussed in the following section. A more in-depth presentation of potential barriers and their potential bridges is in chapter V Conclusion.

### **Small Business Program Bridges**

The researcher used the results of the within-case and cross-case analysis to answer the research question: *What are the bridges to successful small business program implementation, development and sustainment?* and the related investigative questions that are addressed in the subsequent paragraphs. Table 12 lists the results of the data collection which are rank ordered based on respondents identifying them as a bridge. The top five items noted include training for small businesses, leadership support, support and development initiatives, outreach and training for small business professionals and buyers were also mentioned in the literature reviewed for this study.

**Table 12. Small Business Program Bridges**

<b>Bridge</b>	<b>Company</b>										<b>Total</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	
Leadership support*	X	X	X		X	X	X	X	X	X	9
Support and development initiatives*	X	X	X	X	X	X	X		X	X	9
Training for small businesses regarding the proposal and contract processes*	X	X	X		X	X	X	X	X	X	9

Training for small business professionals and buyers*		X	X	X	X	X		X	X	X	8
Outreach events/initiatives*		X		X	X	X	X	X	X	X	8
Recognition, Awards and Incentives*	X		X		X	X	X	X	X		7
Small business conferences*		X			X	X	X	X	X	X	7
A culture within acquisitions and contracting that understands and values small businesses	X	X		X	X				X	X	6
Small business experts on staff*		X			X	X	X	X	X		6
Funding for outreach*				X	X	X	X	X	X		6
Formal top-down policy*	X				X	X	X	X			5
Funding for development*		X		X	X	X			X		5
Sell small business as a value proposition company wide*			X		X	X	X		X		5
A culture that embraces small business*			X				X	X	X	X	5
Clear RFPs			X			X	X		X	X	5
Long-term relationships*			X			X	X		X	X	5
Performance measures tied to personnel evaluations and bonuses*	X		X			X	X	X			5
Focused and thorough market research			X		X		X	X		X	5
A strong relationship between the small business office, acquisitions, contracting and engineers					X	X	X		X	X	5
Funding for quality personnel			X			X	X	X			4
Small business specialist with contracting and acquisitions backgrounds and experience					X	X			X	X	4
Small business personnel who can assist small businesses with navigating the government proposal and contracting information technology tools	X				X	X					3
Forming close business partnerships with diverse suppliers*							X	X		X	3
The correct program leadership at every level			X				X	X			3
Participating in regional councils organizations							X	X		X	3
Creative and multifaceted outreach*						X	X				2
Clear communication and education plan to disseminate the value of diverse suppliers company-wide*			X					X			2
The correct disincentives			X								1

Focus on the end product and find where small businesses can be used in sub-areas			X								1
Pair performance measures with corrective action plans*			X								1

\* Bridges also found in the literature review.

### ***Leadership Support.***

It was mentioned by nine out of ten respondents that leadership support is needed for program success. A USAF respondent noted that it is important to have “leadership support and policy that comes from the highest level.” A commercial company respondent mentioned that “program success starts with leadership and the CEO publishes letters of commitment and corporate policy.” A DoD respondent reported that “it is critical that leadership and management support comes from the command, director or CEO and the director of acquisitions and contracting. Leadership and management support is very important to the organization accepting and acknowledging small business as a value proposition.”

### ***Development and Support Initiatives.***

Development and support initiatives were reported by eight out of ten case study respondents as being keys to overcoming some obstacles to program success. Five out of the eight respondents reported that the SBIR program as an important development and support initiative. Five out of eight respondents also indicated that development was offered through small business conferences. Four out of eight respondents mentioned the mentor-protégé program as a way to offer support and development to small businesses. Two out of eight respondents noted that support was given to small business through the various small business councils. A USAF respondent stated that “the development and

support programs are essential to helping small businesses understand how to effectively write proposals, how to negotiate contracts, to properly market or pitch their product or service and the role of DCMA.” A DoD respondent noted that “often, an entrepreneur or person with a cutting edge innovation is looking for a way to get into the market. Through the SBIR program, mentor-protégé program and other support and development programs, those ideas and ventures can be turned into capabilities to meet the defense mission.”

### ***Training for Small Businesses.***

Nine out of ten case study respondents indicated that it is essential that small businesses be provided with training in order to be able to successfully navigate proposal and contract processes. Out of the nine respondents four mentioned the Procurement Technical Assistance Centers (PTACs). A DoD respondent noted that “The PTACs are essential to teaching and supporting small businesses through the government contracting process. The PTACs also assist the small businesses with learning how to distinguish themselves and become more competitive.” Four out of the nine respondents identified small business conferences as excellent venues to offer seminars for small businesses. Two of the nine case study respondents also noted that one-on-one counseling is used in order to train small businesses on the contract, proposal and marketing processes. A commercial company respondent also offered a similar perspective and reported that, in order to be successful, small businesses need to be taught or mentored to “better market themselves and present themselves well to large companies.”



### ***Training for Small Business Specialists and Buyers.***

While nine out of ten respondents noted training for the small businesses as important, eight out of ten respondents also reported that training for the small business workforce and buyers is very important. A DoD respondent mentioned that “training and education for small business personnel, acquisition personnel and contracting personnel is an important component of success.” A commercial company respondent noted that “education and training is essential to ensure the corporate strategy for diversity is well understood and executed.” Another commercial company respondent reported that “education and training must be effectively used to institutionalize the use of small businesses as a solid and value-added business and economic proposition.”

### ***Outreach.***

Eight out of ten case study respondents indicated that outreach is needed for small business program success. A DoD respondent reported that “outreach initiatives are used to ensure the small business program is adequately advertised and understood.” Four out of the eight respondents mentioned that they use focused outreach supported by good market research to ensure they are identifying suppliers or business partners who best meet mission or strategic needs. Two of the respondents mentioned that outreach needs to be creative and multi-faceted. A commercial company respondent reported that “there are multiple avenues that must be used for outreach, identifying and attracting small business partners and we use the events provided by government programs, the National Veterans Conference, the internet and our own outreach sponsored events.”

### ***Metrics.***

The study also answered IQ<sub>5</sub>: *What metrics are used to indicate the success or failure of small business program initiatives?* and summarizes them in Table 13.

**Table 13. Metrics**

<b>Metric</b>	<b>Company</b>										<b>Total</b>
	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	
Total amount of contract dollars	X	X	X		X	X	X	X	X	X	9
Percentage of contracts in each diverse supplier classification	X	X	X		X	X	X		X	X	8
Total amount of sub-contract dollars	X		X		X		X				4
Qualitative & quantitative measures	X						X			X	3
Return on investment of small business support and development			X				X				2
Return on investment of small business outreach							X				1
How well small businesses meet customer needs								X			1

Nine out of ten of the case study respondents used total amount of contract dollars spent on small businesses along with eight out of ten using the percentage of small businesses from each classification. Four of the respondents also reported monitoring the amount of contract dollars that went to small businesses on sub-contracts. Three out of the ten case study respondents mentioned using qualitative analysis such as the type of outreach, amount of outreach, amount of trade fairs attended and plans for future outreach along with their quantitative analysis of their program. Two for profit companies indicated that they were able to ascertain return on investment of their development initiatives where one also calculated the return on investment of outreach initiatives. One respondent reported measuring how well their diverse suppliers were meeting customers' needs.

### ***Accountability.***

Accountability for small business program success was addressed in this study by IQ<sub>6</sub>: *How are small business program managers and staff held accountable for small business program success?* The metrics listed in the Table 13 were mentioned by the respondents as ways to monitor program success or progress. The metrics are also used to hold small business personnel accountable for the program as a whole. A commercial company respondent reported that metrics and performance measures are “reviewed quarterly, performance requirements are checked and corrective action plans are devised if necessary.” Four respondents indicated using quarterly reports, two respondents reported using monthly reports and three respondents mentioned using both quarterly and monthly reports to hold their personnel accountable. The reports were mentioned by five out of ten respondents as being used to accomplish yearly personnel performance reports and to determine any yearly bonuses.

One of the ten case study respondents also mentioned using a scorecard that is available on the intranet so that business unit heads stay attentive to the program. A commercial company respondent mentioned that their reports are “generated monthly for each business unit. We are metrics and goals focused and each business unit is held accountable for meeting supplier diversity performance standards.” One respondent indicated that their performance measurement and bonuses are not tied to each individual, but performance measurement and bonuses are determined by how well the entire small business team performed.

***Recognition.***

The study's data were used to answer IQ<sub>7</sub> – *Does recognition of small business program successes enhance staff performance?* Ten out of the ten case study respondents indicated that they use recognition that seems to enhance staff performance. Seven out of the ten respondents mentioned that recognition was a bridge to program success. Three of the ten respondents reported that the recognition program seemed to motivate personnel. Two respondents mentioned that their recognition programs incentivized their employees. Two respondents also noted that the recognition programs were motivational and contributed to continuous process improvement. Two respondents noted that recognizing successes was a key to enhanced performance and continuous process improvement. SAIC mentioned that it “uses incentive programs to keep their employees committed to promoting the small business program.” DSCC mentioned that “rewards and incentives are a very important factor of program success and evolution.”

***Long-term Relationships.***

The study's data were used by the researcher to answer IQ<sub>8</sub> – *How do long-term, mutually beneficial relationships affect the organization and small business partners?* Ten out of ten case study respondents indicated advantages (Table 14) of long-term relationships with small business partners.

**Table 14. Long-term Relationship Advantages**

Advantage	Company										Total
	A	B	C	D	E	F	G	H	I	J	
Small business grow into large businesses	X	X	X	X						X	5
Small business become more cost effective	X		X				X			X	4
Improved customer satisfaction			X				X	X		X	4
Small business development					X	X			X	X	4
Small business committed to quality			X				X				2

Other advantages noted by the respondents include:

- Suppliers understand the business strategy better.
- Small businesses gain expertise through a long-term relationship.
- Long-term relationships cultivate better buyer-supplier relationships.
- The small businesses are able become more competitive in the commercial market.
- Long-term relationships help small businesses better understand different professions and organizational cultures.

Three of the case study respondents also mentioned a risk that can be associated with long-term contracts. All three mentioned that long-term contracts can lead to driving out competition and the demise of some small businesses. All of the respondents cautioned that long-term contracts can put the small business market at risk and that re-competing contracts every two to three years keeps the market competitive. Two of the respondents reported that contracts greater than 5 years could risk the inability to change contract prices in order to match the economic environment and lead to the supplier losing money and not able to provide the needed products and/or services.

## Small Business Program Critical Success Factors

The researcher used the results of the within-case and cross-case analysis to answer IQ<sub>9</sub>: *What are the small business program critical success factors?* Table 15 lists the results of the data collection which are rank ordered based on respondents identifying them as a critical success factor in each case. The top five items noted below include qualified personnel, development and support programs, internal training, external training and leadership support. Of the top five mentioned by the respondents four of the critical success factors were also mentioned in the literature reviewed for the study. The four mentioned in the reviewed literature include development and support programs, internal training, external training and leadership support.

**Table 15. Small Business Program Critical Success Factors**

Critical Success Factor	Company										Total
	A	B	C	D	E	F	G	H	I	J	
Qualified and expert small business personnel	X		X		X	X	X	X	X	X	7
Development and support programs*	X	X		X	X	X		X	X		7
Internal Training*	X		X	X	X	X	X		X		7
External Training*	X	X		X	X	X				X	6
Leadership support*	X		X			X	X	X		X	6
An enterprise-wide culture that supports the small business program*			X		X		X	X	X		5
Outreach				X		X	X	X	X		5
Focused and thorough market research	X				X	X				X	4
Involvement in the earliest stages of acquisitions	X				X				X	X	4
Small business personnel who have intimate knowledge of the rules and regulations*	X				X	X			X		4
Close relationship between the small business program, contracting and acquisitions					X					X	2
Part of the corporate strategy			X					X			2
Funding for personnel, market research and outreach							X	X			2

Participation in the NMSBC or other organizations							X	X			2
Formal top-down policy*	X										1
Commanders who understand the value of small businesses	X										1
Performance measurement			X								1
Always be proactive and don't rest on laurels			X								1
Small business personnel who have a background and expertise in contracting and acquisitions						X					1
Small business personnel with excellent public speaking skills to effectively do outreach						X					1
Small business personnel who can help small businesses navigate the information systems						X					1
Correct program leadership at every level*							X				1
Broad agency announcements									X		1

\* Critical success factors also found in the literature review.

### ***Qualified Personnel.***

Seven out of ten case study respondents reported that qualified personnel are a critical success factor. “There is a primary resource that is needed to succeed and that resource is people. You need talented people who have the supplier diversity program as a full time job. To do it right, you need a dedicated and qualified staff committed to the program and with a passion for the program” (Anonymous). A commercial company respondent reported that “the correct personnel resources must be in place who have been trained and equipped and are committed to success.” A USAF respondent mentioned that “the most essential piece is the people; the specialists who are the gateway. The small business specialists must be fully qualified to provide effective outreach and have the knowledge to effectively understand and implement the procedures and regulations.”

Four of the seven reported that it is necessary for small business specialists and managers to have a strong background in acquisitions or contracting.

***Development and Support Programs.***

Seven out of ten case study respondents identified the various development and support programs as critical success factors. Three of the seven respondents reported the SBIR and the mentor-protégé programs as being critical to success. Two of the seven respondents identified the PTAC as a critical success factor. A DoD respondent mentioned that “small businesses need to be offered support with business expertise resources and other resources to be able to successfully enter and compete in the government contracting and acquisition process.” Another DoD respondent also mentioned that “supplier development and support must be in place to ensure that small businesses have the tools and capabilities to survive the government proposal and contracting process.” A USAF respondent reported that it is good if a small business can “work as a sub-contractor in order to be mentored and learn the ropes from a large company before they compete for their own prime contract.”

***Internal Training.***

Seven out of ten case study respondents mentioned training of the organization’s small business personnel as critical to success. A DoD respondent reported that “continuing training and education for small business personnel is essential.” An additional DoD respondent mentioned that “training and education for small business personnel, acquisitions personnel and contracting personnel is an important component of success.” A commercial company respondent noted that “education and training is essential to ensure the corporate strategy for diversity is well understood and executed.”



A different commercial company respondent reported that “education and training must be effectively used to institutionalize the use of small businesses as a solid and value added business and economic proposition.” A USAF respondent mentioned that “a small business workforce and contracting workforce must be trained and knowledgeable about the small business program.” A DoD respondent noted that “there must be training to ensure a good understanding of the procedures and regulations.”

### ***External Training.***

External training was reported by six out of ten case study respondents as being a critical success factor. Three of the six respondents mentioned the Procurement Technical Assistance Centers as providing critical training to small businesses. A DoD respondent mentioned that “the PTACs are essential to teaching small businesses about the government contracting process.” A USAF respondent reported that “the training provided by the PTACs underpin program success.” Two of the respondents reported mentoring as a tool for teaching small businesses about the government contracting process. The same USAF respondent also reported that “training provided by mentors is invaluable and is another way for small businesses to learn how to navigate and survive the government and acquisition process.”

### ***Leadership Support.***

Six out of ten case study respondents reported that leadership support is critical to program success. “In order to be successful, there needs to be a supportive mindset and culture that embraces small businesses that starts from the very top leadership. Senior leadership support is needed in order to implement a program or change the perception of the small business program across the organization” (USAF respondent). A DoD

respondent reported that “the overarching factor that is critical is leadership and management support, especially from the commander, director or CEO and the director of acquisitions and contracting.” “The most important piece to a successful supplier diversity program is leadership support and clear direction. Leadership support leads to a culture that is aware of and supportive of using small businesses or diverse suppliers and the program will not be successful if support is only from the bottom up” (Commercial Company respondent). A USAF respondent noted that a “critical small business program component is to have leadership support and policy that comes from the highest levels.”

The critical success factor leadership support section also addresses IQ<sub>3</sub>: *Does senior leadership involvement and support impact the implementation, development and sustainment of a small business program?* and IQ<sub>4</sub>: *How do corporate or enterprise strategic level efforts affect the success of a small business program?* A commercial company reported that the program is “buttressed by inclusion in the corporate strategy and superior leadership support for enterprise-wide buy-in.” Four of the ten case study respondents reported that senior leadership publishes a yearly support, commitment or vision letter for the supplier diversity or small business program. A commercial company respondent also mentioned that “with top-down support from the CEO, the needed culture changes have taken place to realize the changed view and the improved relationships with our small business partners and the value they add are understood across the enterprise.” Four of the ten respondents also mentioned that it is imperative to understand and communicate organization strategic direction and vision to ensure small business selections match corporate strategy and mission needs. “The organization also needs to look at its strategy and future and try to ascertain the strategic, operational and

tactical needs and then find the small businesses that can best meet the needs” (USAF respondent). Six of the ten case study respondents reported that their program was a part of the corporate strategy. A commercial company respondent reported that as part of the corporate strategy “success starts with leadership and the top CEO. . . . the Diversity Maturity Model is a corporate initiative and the supplier diversity program is one component of that initiative.”

### **Propositions**

In this section, the results of the study’s propositions related to small business program benefits will be presented. Analysis of the information gathered during the case studies was used to determine the results of the propositions as supported, moderately supported or not supported. When more than five of the companies mentioned a particular proposition, then it was considered to be supported. If the proposition was mentioned by a few companies but not by others, the proposition was considered moderately supported. When very few or none of the respondents mentioned a proposition, it was considered not supported.

#### **Small Business Program Benefits Propositions**

Propositions 1,2,3,4 and 5 were related to IQ<sub>1</sub>: *What are the benefits of small business programs?* and are summarized in Table 16.

**Table 16. Benefit Proposition Outcomes**

<b>Proposition</b>	<b>Outcome</b>	<b>Comment</b>
P1 Small business contracts reduce inventory and capital expenditures.	Moderately Supported	Contracts with small business could or could not be more cost effective due to small businesses having lower overhead and concentration on being more effective and efficient with a core competency.
P2 Small business contracts and relationships improve quality and speed of decisions.	Not Supported	Quality of products and services was reported to be higher with small business contracts and relationships. However, there was no support regarding relationships and contracts with small business and improved quality and speed of decisions.
P3 Small business contracts and relationships provide a means for joint effort process, product improvement and innovation.	Supported	Innovation and product improvement were of high importance and major contributions that the small business programs brought to the organizations. Closer relationships through development programs such as SBIR and mentor-protégé allowed better understanding of strategic needs and a joint effort to meet contract requirements, engineering specifications and customers' needs.
P4 Small business contracts and relationships improve customer service, responsiveness and flexibility.	Supported	Six out of ten case study respondents mentioned the flexibility afforded by small businesses, five out of ten reported improved customer service and three out of ten noted that small businesses were more responsive to buyer needs.
P5 Small business relationships provide a means for joint product and/or manufacturing design or redesign.	Not Supported	The case study organizations mentioned that the relationships assisted with bringing the best new ideas to the organization and market. However, they did not report joint product and/or manufacturing design or redesign as being a benefit of small business relationships.

Propositions 3 and 4 were supported, addressed small business contracts, relationships and their effect on innovation, product improvement, joint effort, improved customer service, responsiveness and flexibility. These propositions related to how small businesses can positively effect the organization and the products or services that are consumed or sold by the buyer. Moreover, these propositions support how small business contracts and relationships can improve responsiveness to change and ability to meet customers' needs.

Proposition 1 was moderately supported by the case study data. Four out of the ten survey respondents reported that small businesses can provide cost effectiveness due

to lower overhead. However, two of the ten respondents mentioned that cost effectiveness can be dependent on the amount of business expertise of the small business and their ability to reach economies of scale. OSD reported that cost effectiveness can be worse because many small businesses do not have “business expertise and do not know the levers for supply chain formation and partnerships.”

Propositions 2 and 5 were not supported by the data. Proposition 2 deals with small business contracts and relationships and their effect on the quality and speed or organizational of supply chain decision making. None of the case study respondents mentioned small business contract or relationship factors that effect decision making. Since small business program managers and specialist deal with outreach, identification and development of small businesses, they may not be privy to how the relationship or contract with the small business affects the supply chain or other organizational decisions. This may be more evident to the contracting personnel who administer and maintain the contract with the small business. Proposition 5 was not supported and deals with the ability of small business relationships to provide a means for joint product and/or manufacturing design or redesign. While ten out of ten respondents mentioned that innovation was a key contribution from small businesses, none of the case study respondents specifically indicated that joint product and/or manufacturing design or redesign was impacted by relationships or contracts with small businesses.

### **Small Business Program Barrier Propositions**

Propositions 6, 7 and 8 are summarized in Table 17 and were related to the following investigative questions:

*IQ<sub>2</sub>: What are the barriers to small business program implementation, development and sustainment?*

*IQ<sub>3</sub>: Does senior leadership involvement and support impact the implementation, development and sustainment of a small business program?*

*IQ<sub>4</sub>: How do corporate or enterprise strategic level efforts affect the success of a small business program?*

**Table 17. Barrier Proposition Outcomes**

<b>Proposition</b>	<b>Outcome</b>	<b>Comment</b>
P6 Barriers will have a negative impact on ease and success of small business program implementation, development and/or sustainment.	Supported	The case study respondents mentioned a total of 24 barriers or obstacles to program success. The top five barriers included, resistance from internal personnel, a complex proposal and contract process, organizational culture, funding and a perception that small businesses cannot meet complex requirements.
P7 Lack of senior leader involvement and/or support negatively impacts implementation and sustainment of the small business program.	Supported	Lack of senior leadership support was mentioned by only one respondent as being detrimental to program success. However, six out of ten case study respondents reported that leadership support is critical to program success.

Propositions 6 and 7 were supported by input from the study's data. Regarding proposition 6, the major obstacles appeared to be internal resistance and the complex government proposal and contract processes. Most barriers were similar across the case study organizations, however three of the respondents noted that the nature of their high technology industry presented an additional barrier. It was mentioned that there can be difficulties with identifying small businesses that are able to meet more complex high technology requirements. Two of the respondents also reported that their preponderance to be in the business of large systems integration added a unique barrier. The respondents reported that there are few small businesses available for or capable of large systems integration endeavors.

Proposition 7 deals with senior leader support of and/or involvement in the small business program. Only one of the ten case study respondents specifically noted that lack of senior leadership support would have a negative impact on program success. Six out of ten respondents did not specifically report a negative impact on the program due to lack of senior leadership support, but they did mention that senior leadership support is critical to the success of the program. Furthermore, six of the ten case study respondents reported that their program was positively impacted due to the fact that the supplier diversity or small business program was a part of the corporate strategy.

### **Small Business Program Bridge Propositions**

Propositions 6, 7 and 8 are summarized in Table 18 were related to the following research question:

*What are the bridges to small business program implementation, development and sustainment?*

and related investigative questions:

*IQ<sub>5</sub>: What metrics are used to indicate the success or failure of small business program initiatives?*

*IQ<sub>6</sub>: How are small business program managers and staff held accountable for small business program success?*

*IQ<sub>7</sub>: Does recognition of small business program successes enhance staff performance?*

*IQ<sub>8</sub>: How do long-term, mutually beneficial relationships effect the organization and the small business partner?*

**Table 18. Bridge Proposition Outcomes**

<b>Proposition</b>	<b>Outcome</b>	<b>Comment</b>
P9 Appropriate goals and actionable measures have a positive effect on a small business program.	Supported	The correct incentives and disincentives can motivate personnel to be committed to the small business program and continually improve the program.
P10 Monitoring of goal and metric attainment has a positive affect on accountability of small business managers and staff.	Supported	Monitoring program success and progress is used to hold personnel accountable for their role in the small business program. Monitoring has a positive effect on performance and ensures that the program is valued and identified as important.
P11 Establishing long-term, mutually beneficial relationships with small businesses have a positive effect on the organization and the small business.	Supported	Ten out of ten case study respondents indicated there are advantages (Table 14) from long-term relationships with small business partners.
P12 Recognition of personnel has a positive impact on continuous process improvement and success.	Supported	Seven out of ten respondents reported that recognition of personnel had a positive impact on motivation, performance, commitment, continuous process improvement and program success.

Propositions 9, 10, 11 and 12 were supported by the input from case study respondents. Propositions 9 and 10 addressed appropriate metrics, goals and accountability for program success. The metrics mentioned by the respondents (Table 13) are used to monitor program success and progress. The metrics are also used to hold small business personnel accountable for the program as a whole. Proposition 11 deals with the effect of long-term relationships on the organization and the small business. The advantages of long-term relationships are summarized in Table 14. While there are many advantages that can be realized through long-term relationships three of the respondents pointed out risks of long-term contracts to include reduction of competition within market segments and inability to increase rates in accordance with the economic environment.

Proposition 12 addressed recognizing personnel for outstanding performance. Seven out of the ten case study respondents identified recognition as a key bridge to program success and four out of ten respondents indicated that it contributed to



continuous process improvement. Lockheed Martin mentioned that “everyone likes a pat on the back” and their incentives allow them to provide recognition and motivation in many ways through “promotional materials, simple thank you notes, superior performance awards and monetary awards.”

### **Small Business Program Bridges Propositions**

Propositions 13 addressed IQ<sub>9</sub>: *What are small business program critical components and success factors?* and is summarized in Table 19.

**Table 19. Critical Success Factors Proposition Outcomes**

<b>Proposition</b>	<b>Outcome</b>	<b>Comment</b>
P13 Implementing/including small business program critical components and success factors are keys to program viability.	Supported	Ten out of the ten case study respondents mentioned critical components and success factors that are need for program success and viability. The critical success factor mentioned by the case study respondents are listed in Table 15.

Proposition 13 assisted the researcher in identifying if a small business program has any critical components or success factors. Overall, the case study respondents identified 24 different critical success factors while agreeing that the top five were qualified personnel, development and support programs, internal training, external training and leadership support. Other critical success factors include:

- An organizational culture that embraces the supplier diversity or small business program.
- Outreach initiatives.
- Focused and thorough market research.
- Involvement in the earliest stages of acquisitions.
- Small business personnel who have intimate knowledge of the proposal and contract rules and regulations.

## **Summary**

This chapter provided aggregated data analysis from the within-case and cross-case analyses and the findings of the case studies as they related to the ten investigative questions and thirteen propositions. This chapter presented the overarching research areas or questions and the investigative questions that pertained to each research question. Finally, the chapter presented the data analysis as it pertains to the propositions related to each investigative question and identified if each proposition outcome was supported, moderately supported or was not supported by the case study data. The next chapter provides overall conclusions and answers to each of the four overall research questions.

## **Chapter V. Conclusion**

### **Overview**

The fifth and final chapter provides an overview of the overall research questions. Next, overall conclusions, answers and recommendations will be discussed. This chapter then addresses the assumptions and limitations of the research. The chapter concludes with areas or topics for future research.

### **Review of Research Questions**

The research examined small business program benefits, barriers, bridges and critical success factors. A better understanding of these factors could enable leaders and managers to improve small business program implementation, development and sustainment decisions and strategies. The study established the following overarching research questions:

- ❖ *What benefits do organizations receive from implementing initiatives that increase integration of small businesses into the supply chain?*
- ❖ *What are the barriers that organizations face when implementing, developing and sustaining a small business program?*
- ❖ *What are the bridges to effective implementation, development and sustainment of a small business program?*
- ❖ *What are the critical factors or components for small business program success?*

### **Implications**

The study findings indicate that there are many benefits to implementing, developing and sustaining a small business program. Even though there are barriers that can have a negative impact on a small business program, the overall sentiment seemed to

be that there were sufficient bridges or initiatives that could be implemented in order to mitigate the barriers. Based on the results of the ten case studies, there are critical success factors that must be in place to ensure small business program success. A summary of the detailed findings from Chapter IV Analysis and Results is provided in the following paragraphs.

The supplier diversity and small business professionals interviewed for this study provided five top benefits that an organization realizes from a small business program. Of the reported benefits, innovation was mentioned by all case study respondents and it was reported that small businesses are essential for providing new ideas, providing niche products and services and meeting unique customer requirements or needs. The other top five benefits include support to the economy, high quality products and services, flexibility and agility. Of the top five benefits noted by the case study respondents, high quality service, innovation, support to the economy, agility and flexibility were also mentioned in the literature reviewed for the study.

The top five barriers to small business program implementation, development and sustainment success included resistance from internal personnel, a complex proposal and contract process, organizational culture, funding and perceptions that small businesses cannot meet complex requirements. Complex proposal and contract process, organizational culture and funding were also mentioned in the literature reviewed for the study. Resistance from internal personnel and a complex proposal and contract process were each mentioned by seven out of ten case study respondents. Resistance was reported to come from three sources 1) personnel 2) a lack of confidence in diverse suppliers' capabilities and abilities to meet high technology requirements and 3) lack of a

clear understanding that diverse suppliers can be a viable value proposition. The proposal and contract process complexity was reported to discourage small businesses from wanting to become business partners with the government and that small businesses are at a disadvantage due to the complexity of the process.

Leadership support, development and support initiatives, training for small businesses, training for small business professionals and buyers and outreach initiatives were the top five bridges mentioned by the case study respondents and all five were also mentioned in the literature reviewed for the study. A three-way tie, each mentioned by nine of the respondents, belonged to leadership support, support and development initiatives and training for small businesses. Overall, the respondents reported that leadership support and policy needed to be top-town. The development and support initiatives were reported to be keys to overcoming the challenges presented by the complex proposal and contract process. Along with support and development programs, training through small business conferences and other outreach events, one-on-one counseling and the PTACs were vital. The training initiatives assist with overcoming the complex proposal and contract process and help the small business learn to better market themselves and present themselves to large companies and the government. A summary of barriers and their potential bridges is presented in Table 20.

**Table 20. Small Business Program Potential Barriers and Bridges**

<b>Barrier</b>	<b>Potential Bridge</b>
Resistance from internal personnel	Leadership support, training and education
Complex proposal and contract process	Training and mentoring
Organizational Culture	Leadership support, training, recognition, a culture within acquisitions and contracting that understands and values small businesses
Funding	Dedicated small business program budget
Perception that small businesses cannot meet complex requirements	Training and education
Bundling and consolidation contracts	Understand long-term strategy and possible consequences
Supplier base reduction efforts	Understand long-term strategy and possible consequences
Difficult to find small businesses to meet high tech contract requirements	SBIR type programs, mentoring, outreach events and initiatives
Negative perceptions of small businesses	Training and education
Unclear RFP expectations	Write RFPs small businesses can understand and provide a better proposal, training and education, mentoring
Lack of business expertise within small businesses	Mentoring, training and education
Lack of marketing expertise	Training and education

The top five critical success factors mentioned by the case study respondents were qualified and expert small business personnel, development and support programs, internal training, external training and leadership support. Development and support programs, internal training, external training and leadership support were also reported as success factors in the literature reviewed for this study. The most valuable resource was noted to be the small business personnel who were experts and were equipped to support small business through the contract and proposal processes as well as with navigation of the automated systems used to query for request for proposal and then submit a proposal. The development and support programs were purported as a necessity for supporting

small businesses with expertise, resources and training in order to successfully enter and compete within the large company and government contracting and acquisition processes. Internal training was mentioned as essential to success ensures that the small business program is understood enterprise-wide and that small business personnel are continually trained and remain knowledgeable about the latest rules, regulations and efforts within the small business program realm. A summary of the top five benefits, barriers, bridges and critical success factors is in Table 21.

**Table 21. Top Five Potential Benefits, Barriers, Bridges and Critical Success Factors**

<b>Benefits</b>	<b>Barriers</b>	<b>Bridges</b>	<b>Critical Success Factors</b>
Innovation	Resistance from internal personnel	Leadership support	Qualified and expert small business personnel
Support to economy	Complex proposal and contract process	Development and support initiatives	Development and support initiatives
High quality products & Services	Organizational culture	Training for small businesses	Internal training
Flexibility	Funding	Training for small business professionals and buyers	External training
Agility	Perception that small businesses cannot meet complex requirements	Outreach events and initiatives	Leadership Support

## **Recommendations**

The study seems to uncover several means by which organizations can improve small business program performance and increase the amount of contract spending with the six classes of small businesses. Leadership support from the highest level can positively affect the success of a small business program and the program can be

enhanced by inclusion in the corporate strategy and support from a formal corporate policy regarding diversity. Communicating the strategy to the entire organization is helpful. The diversity strategy and the value proposition provided by small business partners needs to be fully communicated to the entire organization and fully understood by the small business personnel, engineers, acquisition personnel and contracting personnel. Armed with a firm understanding of the corporate strategy and future, a cross-functional team is better able to identify, develop and select diverse suppliers and small businesses that best meet corporate needs and requirements for short-term and long-term acquisition and contracting strategies. Thorough and focused market research seems to be a key factor in better identifying and selecting the best suppliers and increasing the return on investment of outreach initiatives.

Along with understanding the corporate strategy, the study seems to indicate well trained and expert small business personnel with backgrounds in acquisitions and contracting are needed to ensure small business program success. Training and education can be used for all members of the cross-functional team to institutionalize the use of small businesses and to keep the personnel current on laws, rules and regulations that affect the small business program. Regularly monitored and publicly announced performance metrics and measurements can be used to motivate personnel and provide continuous process improvement and program evolution.

Long-term relationships with small business partners can aid in the development of the small business, improve cost effectiveness, improve the small business's understanding of the buyer's strategy and improve the small business' competitiveness to name a few. However, it may be prudent to have a strategy for long-term relationships to



enhance development of select small businesses that provide unique or critical products and services. Extensive use of long-term relationships or specifically long-term contracts may risk the loss of a competitive market when it is time to re-compete contracts in years ahead. Long-term relationships may have adverse financial impacts on small businesses since contracts may not allow sufficient payment rate increases to match economic environments that emerge over the long-run.

### **Assumptions & Limitations of Research**

The study attempts to identify the benefits, barrier, bridges and critical success factors for small business programs from literature and then from within-case and cross-case analyses of ten case studies. However, with any research there are assumptions and limitations that must be addressed. The assumptions and limitations are as follows:

- The study employed many sources from literature to develop the investigative questions, propositions and interview questions. Even though a literature review was conducted, the research may have omitted important success factors. Moreover, some benefits, barriers bridges and critical success factors may require further study and qualitative and quantitative analysis.
- A broad view of the benefits, barriers, bridges and critical success factors was accomplished by this study. Studying each category individually or more in-depth could provide a better understanding of the implications related to each category, the elements within each category and their specific effects on the organizations and the small businesses.
- This study provides a macro view of small business programs and could allow for the results to be generalized across different organizations. However, as

was discovered through the case studies, there may be some differences between government and commercial industry small business programs that could provide a challenge to broad generalization. The term ‘small business program’ was used to discuss both small business and supplier diversity programs. However, the study did not research the terms to ascertain if they were indeed completely interchangeable terms. Also, the majority of the organizations that participated in the study were from the Federal government and these organizational demographics could also limit the generalization of the findings.

- The study was limited by focusing on the small business manager and specialist points of view and did not include the points of view of any small business owners, engineers, acquisition personnel, contracting personnel, supply chain managers or financial/budgeting personnel. This limited perspective may have biased the findings.
- Research bias can occur in any type of research design and according to Yin (2003) it is a major concern with a case study research design. Even though informants reviewed draft reports, a case study protocol was followed and a case study database was maintained to support construct validity and reliability, the most strict research design leaves potential for bias. Therefore, the findings could reflect some amount of bias.

### **Future Research**

The case study interviews and subsequent interview summaries assisted with identifying potential areas where this exploratory research could be expanded through

further qualitative and quantitative investigation. The benefit of exploratory research is a base from which to build further studies and research. Proposed further research is discussed in the following paragraphs.

Federal organizations tend to refer to their programs as small business programs while the majority of commercial organizations researched for this study refer to their programs as supplier diversity programs. Further study may help understand the similarities and differences between Federal government and commercial industry small business programs and supplier diversity programs. A study may be useful in determining if Federal organizations and commercial organizations warrant separate and different approaches to small businesses and supplier diversity.

This study was limited by gaining only the perspective of small business managers and specialists. Further research could investigate the perspective of engineers, acquisition personnel, contracting personnel and finance/budgeting personnel, supply chain managers and small business owners. The investigation could provide the perspective from these different points of view and provide better insight regarding the benefits, barriers, bridges and success factors as they relate to each portion of the cross-functional team. Also, data from the financial/budgeting personnel and supply chain managers could better explore the effects on revenues, profits, cost effectiveness, economies of scale, inventory levels/costs and transportation and distribution costs, for example.

Further research could investigate the following:

- The benefits and effectiveness of supplier development and support initiatives such as SBIR and the mentor-protégé programs.

- The calculation of return on investment for small business development and outreach initiatives in non-profit and for-profit organizations.
- The effects of long-term contracts and supplier base reduction efforts on the competitiveness of market segments and viability of small businesses.

The areas identified for further research are not an exhaustive listing and provide a small portion of potential research that could be conducted on this subject.

## **Appendix A: List of Abbreviations and Acronyms**

This listing provides a reference for the many abbreviations and acronyms used in this study. All terms are fully spelled out upon first usage in the study and abbreviated thereafter.

<u>Abbreviation</u>		<u>Description</u>
AFMC	-	Air Force Materiel Command
AFRL	-	Air Force Research Laboratory
DCMA	-	Defense Contract Management Agency
DSCC	-	Defense Supply Center Columbus
DoD	-	Department of Defense
HUBzone	-	Historically Underutilized Business Zone
IQ	-	Investigative Question
NMSDC	-	National Minority Supplier Development Council
OSD	-	Office of the Secretary of Defense
PTAC	-	Professional Technical Assistance Center
RFP	-	Request for Proposal
SAF/SB	-	Secretary of the Air force/Small Business Office
SBA	-	Small Business Administration
SBIR	-	Small Business Innovation Research
SBPO	-	Small Business Program Office
SME	-	Subject Matter Expert
SPWC	-	Small War Plant Corporation
USAF	-	United States Air Force

## **Appendix B: Introduction and Research Summary Letter**

### **Introduction Letter**

(Adapted from Ellram, 1996)

Date \_\_\_\_\_

Dear \_\_\_\_\_,

Thank you for agreeing to an interview regarding small business programs. I am looking forward to my visit to \_\_\_\_\_ on \_\_\_\_\_. I truly appreciate your time and your willingness answer the research questions.

I have included a brief research summary as well as a copy of the interview guide. These documents are guides for the overall interview process, and cover the host of topics I would like to discuss. Although the guide may seem long, I fully intend to take up no more than 1 ½ hours conducting the interview. As the implementation and sustainment efforts for Small Business Programs can vary dramatically from company to company, understanding your company's benefits, barriers, bridges and critical success factors regarding implementation, development and sustainment of your program is important to my research.

Finally, if you have any general or specific information about the implementation, development and/or sustainment of your Small Business Program that you could send in advance, I would greatly appreciate this courtesy. Having this information would help me better prepare for our visit.

Thanks again! Please call me at \_\_\_\_\_ or email me at \_\_\_\_\_ if you have any questions or concerns.

Sincerely,

## **Research Summary Letter**

(Adapted from Sprague, 2009)

### **Focus of Study**

The focus of the research is to determine the best methods to implement and sustain a successful Small Business Program. The study uses interviews to answer ‘how’ and ‘what’ questions which are of prime concern to the researcher and is a step toward understanding the benefits, barriers and bridges and critical success factors of a Small Business Program. Understanding \_\_\_\_\_’s Small Business Program implementation and sustainment initiatives is critical to this research.

### **Purposes**

1. Understand Small Business Program benefits.
2. Understand Small Business Program barriers that affect implementation, development and sustainment.
3. Understand Small Business Program bridges that support implementation, development and sustainment.
4. Understand how long-term, mutually beneficial relationships with diverse suppliers affect organizations and small businesses.
5. Understand Supplier Small Business critical success factors.

### **Benefits to Participating Companies**

Participating companies will be given in-depth results from the research, including their company’s individual case study write-up and the overall research results. These results should lead to a greater understanding of the implementation, development and sustainment of successful Small Business Programs. If requested, I will compile a report comparing the implementation and sustainment efforts of your organization to the other participating organizations. This comparison may enable you to determine what methods to use when implementing new (or expanding existing) supplier diversity initiatives or when performing some other large-scale transformation process in the future.

### **Privacy/Confidentiality**

To increase the validity of the study and the acceptance of the findings, the study would like to identify your company as a participant in publications generated through this research, unless you specify that your company wishes to remain anonymous. In either event, in order to ensure accuracy, transcripts of data collected during the interviews will be provided to the interview respondents so that necessary corrections or clarifications can be made.

**Time Commitment / Time Frame**

These interviews will be face-to-face, on-site interviews. Follow-up questions, if necessary, will be handled via phone or e-mail. If a face-to-face interview is absolutely not possible, a telephone or e-mail interview will be conducted.

My goal is to complete the data collection phase of this research by April 15, 2009 and to submit the findings of my research to all participating organizations no later than May 15, 2009.



## **Appendix C: Case Study Organizations**

### **US Air Force Small Business Program Office (USAF SBPO)**

The USAF SBPO is overseen by the Secretary of the Air Force/Small Business (SAF/SB). The SAF/SB oversees the execution of the Small Business Programs for the Department of the Air Force and has overall responsibility for its direction, management, and performance measurement. The mission of the U. S. Air Force is to *fly, fight* and *win* ... in air, space, and cyberspace. The nine major commands, 35 field operating agencies, four direct reporting units and their subordinate elements constitute the field organization that carries out the Air Force mission. In addition, there are two Reserve components, the Air Force Reserve, which is also a major command, and the Air National Guard. The USAF employs over 320,000 Active Duty Airmen, 106,000 Air National Guard, 76,000 Select Reservists and 163,000 Civilian personnel.

### **Office of the Secretary of Defense Small Business Program Office (OSD SBPO)**

The OSD SBPO advises “the Secretary of Defense on all matters related to small business and are committed to maximizing the contributions of small business in DoD acquisitions.” (OSD SBPO) They provide the small business program leadership and governance for the Military Departments and Defense Agencies. They ensure that the Department of Defense meets the needs of the Nation's warfighters while creating opportunities for small businesses. The Department of Defense provides leadership for all the Military Services that are made-up of over 1.4 million Active Duty, 450,000 National Guard, 404,000 Selected Reserve and 680,000 Civilian personnel.

## **SAIC**

SAIC headquartered in McLean, VA is a scientific, engineering and technology applications company that provides solutions for national security, energy, the environment, health and critical infrastructure. SAIC is Fortune 500® company with over 45,000 employees with offices in 150 countries.

## **Defense Logistics Agency**

DLA is the Department of Defense's largest combat support agency located in Fort Belvoir, Va. The Agency provides worldwide logistics support to the Military Services, civilian agencies and foreign countries. DLA supplies every consumable used by American Military services and disposes of materiel and equipment that is no longer needed. The Agency coordinates 114,000 requisitions per day and 2,100 contracts per day on average. They also manage 5.2 million items and 8 supply chains. Located in 48 states they employ over 23,000 employees.

## **Defense Supply Center Columbus**

DSCC, located in Columbus, OH, is a supply/demand chain within DLA and is one of the largest suppliers of weapon systems spare parts. The Center is an end-to-end supply chain manager for the land and maritime supply chains in support of the Military Services. DSCC manages over 2 million items and accounts for more than \$3 billion in annual sales.

## **Lockheed Martin**

Lockheed Martin, headquartered in Bethesda, MD, is a global security company engaged in research, design, development, manufacture, integration and sustainment of advanced technology products and services. Most of the company's business is with the Department of Defense and other Federal agencies and is the largest provider of information technology services, systems integration and training to the US government. The company employs nearly 146,000 people worldwide and its 2008 sales were \$42.7 billion.

## **Anonymous**

This company is a global communications company that provides solutions for individuals, businesses and the government that allows them to be more easily connected anywhere around the globe.

## **US Air Force Materiel Command Small Business Program Office (AFMC SBPO)**

The AFMC SBPO formulates and implements small business program policy and planning and provides guidance to field activity small business offices. The AFMC SBPO has offices at each installation and three Air Logistics Centers that specialize in life cycle weapons system management for aircraft, missiles, electronic systems, cryptologic systems, aeronautic systems, armaments and research and development. AMFC employs over 78,000 personnel, its budget represents 57 percent of the Air Force budget and employs more than 40 percent of the Air Force's total civilian workforce.

## **US Air Force Research Laboratory Small Business Program Office (AFRL SBPO)**

AFRL is a full spectrum laboratory responsible for planning and executing the USAF's entire science and technology budget. This includes basic research, applied research and advanced technology demonstration. AFRL is organized into nine technology directorates that are dispersed among five sites. Each directorate procures, performs and synthesizes research with their respective areas of responsibility with the objective of providing integrated solutions to meet customer requirements. AFRL employs nearly 9,600 people and outsources 75 percent of its budget to industry, the international community and academia in order to leverage the world's knowledge and provide the most innovative science and technology to the USAF.

## **Appendix D: Interview Guide**

### **Small Business Program Interview Guide**

(Adapted from Ellram, 1996)

#### **Interview Flow and Definition Sheet**

This guide provides the basic flow of the interview and explains non-standard terms and items from the interview guide.

##### **Interview Flow:**

1. Background Information
2. Benefits Questions
3. Barrier Questions
4. Bridge Questions
  - a. Senior Leadership and Strategy
  - b. Goals and Measurement
  - c. Supplier Relationships
  - d. Recognition
5. Critical Success Factors Questions
6. Wrap-up Question

##### **Non-Standard Terms and Definitions:**

1. Bridge – The study defines bridges as mechanisms, initiatives or processes that overcome barriers or are used to overcome bridges.

## Small Business Program Interview Guide

### Interview Questions

#### **Background Information:**

Name \_\_\_\_\_

Job Title \_\_\_\_\_ Years with Company \_\_\_\_\_

Company Name \_\_\_\_\_

Industry \_\_\_\_\_

Total Number of: Company Employees \_\_\_\_\_

1. When did your company implement its Small Business Program?
2. How long did the Small Business implementation take – from initial Small Business Program concepts to its current status? How would you characterize the current status of your Small Business (basic, traditional, advanced, world class)?
3. What was/is your role in the conceptualization, implementation and or sustainment of the program?

#### **Benefit question:**

4. How does your organization benefit from your Small Business Program and mutually beneficial relationships with diverse suppliers? (i.e., cost reduction, increased quality and customer satisfaction, decreased inventory, reduction of capital expenditures)

#### **Barrier question:**

5. What pitfalls or barriers were there to overcome regarding the conceptualization, implementation, development and/or sustainment of your Small Business Program?

#### **Barrier/Bridge questions:**

##### **Senior Leadership/Strategy**

6. To what extent is your Small Business Program supported by the CEO or equivalent individual?
7. Does your organization have a written Small Business policy? If so, how does your organization present the policy (part of corporate strategy)? (tactical/strategic)

**Bridge questions:**

**Goals and Measurement**

8. How does your organization track supplier Small Business Program success?
9. What measurement and reporting system do you use so that management can monitor Small Business Program results?

**Supplier Relationships:**

10. What are the results from long-term relationships with small businesses?

**Recognition:**

11. Do you recognize and/or reward personnel? If so, does recognition help ensure positive program results and continued improvement?

**Success Factors:**

12. What are the small business program critical components or success factors?

**Wrap-up:**

13. Is there anything you wish to add or comment on that I failed to bring up?

## **Appendix E: Blue Dart**

Major Tricia A. Van Den Top, Student, AFIT

[Tricia.vandentop@us.af.mil](mailto:Tricia.vandentop@us.af.mil)

Word Count: 736

### **Small Business Programs: Benefits, Barriers, Bridges and Critical Success Factors**

Social regulation of contracting has been used by the United States Government since the Great Depression to provide support to small businesses and the industrial base. Legislation continually strengthens and focuses small business mandates and programs initiatives for Federal agencies. While Federal agencies are mandated to implement small business program offices, many private companies have identified small businesses as a value proposition and have incorporated small business programs to strengthen their supply chains.

On the supply side of the American economy, small businesses are eclipsing the growth of all American businesses at a rate of 17% per year. It could be argued that these growth rates make small businesses a potent potential market and a clear link between economic development and future sales growth. Small businesses make up over 99 percent of US employer firms and provide over 90 percent of the Nation's jobs. In 2006, the Department of Defense (DoD) and the United State Air Force (USAF) were given unfavorable ratings by the Small Business Administration (SBA) for not meeting statutory small business goals. The Secretary of the Air Force directed USAF small business teams to strengthen the USAF small business program and improve the USAF contribution to achieving the DoD small business goals. The 'Beyond Goals' campaign



was designed to take the small business program beyond merely meeting statutory goals to realizing small businesses as value-added partners that contribute to mission success.

Long-term relationships with small business partners can aid in the development of the small business, improve cost effectiveness, improve the small business's understanding of the buyer's strategy and improve the small business' competitiveness. However, it may be prudent to have a focused strategy for long-term relationships that clearly identifies development and support of select small businesses that provide unique or critical products and services. Extensive use of long-term relationships, or specifically long-term contracts, may risk the loss of a competitive market when it is time to re-compete contracts in years ahead. Long-term relationships may also have adverse financial impacts on small businesses since contracts may not allow sufficient payment rate increases to match economic environments that emerge over the long-run.

The study identified the benefits of small business programs, the general implications of the barriers to program success, the bridges to program success and critical small business program success factors. A better understanding of these factors could enable leaders and managers to improve small business program implementation, sustainment and development strategy and decisions. Small business program success can have a positive economic impact on an organization, local communities and the Nation as a whole. Successful small business programs and small business partnerships can also result in a positive impact on an organization's agility, flexibility and mission success. The study's information can be used by government and private organizations' leaders and managers to minimize program barriers and maximize program success.

Leadership support from the highest level can positively affect the success of any small business program and the program can be further enhanced by inclusion in the corporate strategy and support from a formal corporate policy regarding diversity. Communicating the strategy to the entire organization is helpful. However, it seems that the diversity strategy and the value proposition provided by small business partners needs to be fully communicated to the entire organization and fully understood by the small business personnel, engineers, acquisitions personnel and contracting personnel. A cross-functional team is better able to identify, develop and select diverse suppliers and small businesses that best meet corporate needs and requirements for short-term and long-term acquisition and contracting strategies. Thorough and focused market research seems to be a key factor in better identifying and selecting the best suppliers and increasing the return on investment of outreach and development and support initiatives.

Along with understanding the corporate strategy, the study seems to indicate that well-trained and expert small business personnel with backgrounds in acquisitions and contracting are needed to ensure small business program success. Training and education can be used for all members of the cross-functional team to institutionalize the use of small businesses and to keep the personnel current on laws and regulations that affect the small business program. Regularly monitored and publicly announced performance metrics and measurements can be used to motivate personnel and provide continuous process improvement and program evolution.

Tricia A. Van Den Top is a student at the Air Force Institute of Technology.

***The views expressed in this article are those of the author and do not reflect the official policy or position of the United States Air Force, Department of Defense or the US Government.***

## Bibliography

- Auskalinis, Richard J., Ketchum, Carol L. and Carter, Craig R. "Purchasing from Minority Business Enterprises: Best Practices." *CAPS Research, Institute for Supply Chain Management*. Retrieved from <https://www.capsresearch.org/> on February 19, 2009
- Carter, Craig R. and Jennings, Marianne M. "Purchasing's Contribution to the Socially Responsible Management of the Supply Chain." *CAPS Research, Institute for Supply Chain Management*. Retrieved from <https://www.capsresearch.org/> on February 19, 2009
- Conrad, Ginger, Robinson, John F., and Walker, Forrest. "Conquering the M/WBE Challenge." *Purchasing Today*, 2000. <https://www.ism.ws/> on January 4, 2009.
- Denslow, Diane and Giunipero, Larry C. "Nurturing Supplier Diversity in the Fastest Growing Sectors of Small Business." International Supply Chain Management Conference report, May, 2008. Retrieved from <https://www.ism.ws/> on December 12, 2008.
- Department of Defense Small Business Office (DoD SBPO). "Mentor-Protégé Program." [http://www.acq.osd.mil/osbp/mentor\\_protege/](http://www.acq.osd.mil/osbp/mentor_protege/) accessed on February 23, 2009.
- Dozbada, Mary S. "Critical Supplier Relationships: Generating Higher Performance." *Purchasing Today*, 1999,10, 2. <https://www.ism.ws/> on October 4, 2008.
- Dunn, Steven C. and Young, Richard R. "Supplier Assistance Within Supplier Development Initiatives." *The Journal of Supply Chain Management*, 2004. Retrieved from <https://www.capsresearch.org/> on February 6, 2009
- Ellram, Lisa M. (1996). "The Use of the Case Study Method in Logistics Research," *Journal of Business Logistics*, 17(2), 93-138.
- Fawcett, Stanely E., Magnan, Gregory M. and Ogden, Jeffrey A. "Achieving World-Class Supply Chain Collaboration: Managing the Transformation." *CAPS Research, Institute for Supply Chain Management*. Retrieved from <https://www.capsresearch.org/> on January 7, 2009
- Frontczak, Deirdre. "Mentoring: a key to supplier diversity." *Purchasing Today*, 12 volume 9: 2001.

- Gay, L. R. and Airasian, Peter. *Educational Research: Competencies for Analysis and Applications*. Columbus, OH: Merrill Prentice Hall, 2003.
- Glaser, Eric L. *Pareto Optimum Improvement in Government Contracting*. MS Thesis. Naval Post Graduate School, Monterey, CA, December, 1999.
- Handfield, Robert and Edwards, Steven A. *Developing minority and diverse suppliers: results from a recent benchmark study*. International Supply Management Conference Report, May, 2005. Retrieved from <https://www.ism.ws/> on September 12, 2008.
- Kapp, Parker. and Banks, Betty. *Meeting the challenge of supplier diversity*. Centurion Institute of Technology and Management. Retrieved from <https://www.ism.ws/> on December 29, 2008.
- Kerr, Joan. *Hitting Home Runs: Supply Managers as Supplier Diversity MVPs*. International Supply Chain Management Conference report, May, 2006. Retrieved from <https://www.ism.ws/> on December 12, 2008.
- Merkle, Maureen and Kerr, Joan. *Revitalizing the supplier diversity value proposition through supply chain effectiveness*. International Supply Chain Management Conference report, April, 2004. Retrieved from <https://www.ism.ws/> on September 12, 2008.
- McHugh, Marie, Humphreys, Paul, and McIvor, Ronan. (2003). "Buyer-Supplier Relationships and Organizational health." *The Journal of Supply Chain Management*, Spring, 2003. Retrieved November 17, 2008, from Institute for Supply Management Research database.
- Min, Hockey. "Gaining competitive advantages through a supplier diversity program." *Practix*, December, 1999. Retrieved from <https://www.ism.ws/> accessed on December 29, 2008.
- Nesby, Tom and Yeater, Amy. "Implementing the program." *National Association of Purchasing Management InfoEdge*, 1, 1996. Retrieved from <https://www.ism.ws/> on October 4, 2008.
- Ogden, Jeffrey A. *An Empirical Investigation of the Antecedents, Processes and Benefits of Supply Base Reduction Efforts*. Arizona State University, 2003.
- Patton, Michael Quinn. (2002). "Qualitative Research & Evaluation Methods." *Thousand Oaks, California: Sage Publications, Inc.*
- Rainer, K. and Turban, E., (2009). *Introduction to Information Systems*. John Wiley and

- Sons, Inc.: New Jersey, 2009.
- Reardon, Elaine and Moore, Nancy. *The Department of Defense and Its Use of Small Businesses*. Washington: RAND Corporation, 2005.
- Richards, Patricia J. and Ballenger, Steve. *Utilizing Supplier Diversity to Achieve Business Goals*. International Supply Chain Conference report, May, 2005. Retrieved from <https://www.ism.ws/> on October 4, 2008.
- Roberts, Julie S. "Steering and Steadying Supplier Relationships." *Inside Supply Management*, 2004. Retrieved from <https://www.ism.ws/> on October 4, 2008.
- Sharma, Raj, Laseter, Timothy, and Witt, Russ. *Making a Stronger Case for Supplier Diversity*. International Supply Chain Management Conference report, May 2008. Retrieved from <http://www.capsresearch.org/> on December 29, 2008.
- Smith, Winston, Banks, Elizabeth, Lane, Randall, and Moore, Ralph. (2002). *Supplier Diversity Initiatives: The Business Case and Best Practices*. International Supply Management Conference Report, May, 2002. Retrieved from <https://www.ism.ws/> on October 4, 2008.
- Smith, G., Watson, K., Baker, W., and Pokorski, J. "A Critical Balance: Collaboration and Security in the IT-Enabled Supply Chain." *International Journal of Production Research*, June, 2007.
- Sprague, Thomas. *Education and Training Aspects of an Expeditionary Combat Support System Implementation Strategy*. Air Force Institute of Technology, March 2009.
- Terrill, A. Clark. *How to Build a Strong, Well Developed Supplier Diversity Program*. Institute for Supply Chain Management session notes, May, 2006. Retrieved from <https://www.ism.ws/> on December 29, 2008.
- Terrill, A. Clark. *Wake Up Your Supplier Diversity Program*. Institute for Supply Chain Management session notes, May 7, 2007. Retrieved from <https://www.ism.ws/> on December 29, 2008.
- United States Air Force Small Business Program Office. <http://www.selltoairforce.org/> accessed on 17 July 2008.
- United States Census Bureau.  
[http://www.census.gov/econ/census07/www/user\\_guide/index.html](http://www.census.gov/econ/census07/www/user_guide/index.html) accessed on 13 December 2008.

- United States Congress. *The Small Business Act of 1953*. Public Law 85-536, 85th Congress, 1st Session. Washington: GPO, 1953.
- . *Amendment to the Small Business Act*. Public Law 95-507, 95th Congress, 2nd Session. Washington: GPO, 1978.
- . *Small Business Competitive Demonstration Program Act of 1988*. Public Law 100-656, 100th Congress, 2nd Session. Washington: GPO, 1988.
- . *Small Business Reauthorization Act of 1997*. Public Law 105-135, 105th Congress, 1st Session. Washington: GPO, 1997.
- United States Small Business Administration, Office of Advocacy, accessed on 18 July 2008 at <http://www.sba.gov/advo/>.
- United States Small Business Administration (SBA). Accessed on July 17, 2008 at <http://web.sba.gov/pro-net/docrootpages/index.html>.
- Worthington, Ian, Ram, Monder, Harvinder and Shah, Mayank. "Researching the Drivers of Socially Responsible Purchasing: A Cross-National Study of Supplier Diversity Initiatives." *Journal of Business Ethics*, 2008. Retrieved January 10, 2009, from ABI/INFORM Research database.
- Whitfield, Gwendolyn and Landeros Robert. "Supplier Diversity Effectiveness: Does Organizational Culture Really Matter?" *Journal of Supply Chain Management*, 2006. Retrieved from <https://www.ism.ws/> on January 7, 2009.
- Wynne, Michael W. "Air Force Small Business," Office of the Secretary of the Air Force, March, 2008.
- Yin, Robert K. (2003). Applications of Case Study Research, 2<sup>nd</sup> Edition. *Thousand Oaks, California: Sage Publications, Inc.*
- Yin, Robert K. (2004). Applications of Case Study Research, 3<sup>rd</sup> Edition. *Thousand Oaks, California: Sage Publications, Inc.*
- Yuva, J. "Essential Factors to a Successful Supplier Diversity Initiative." *Inside Supply Management*, March, 2005. Retrieved from <https://www.ism.ws/> on January 14, 2009.

## **Vita**

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